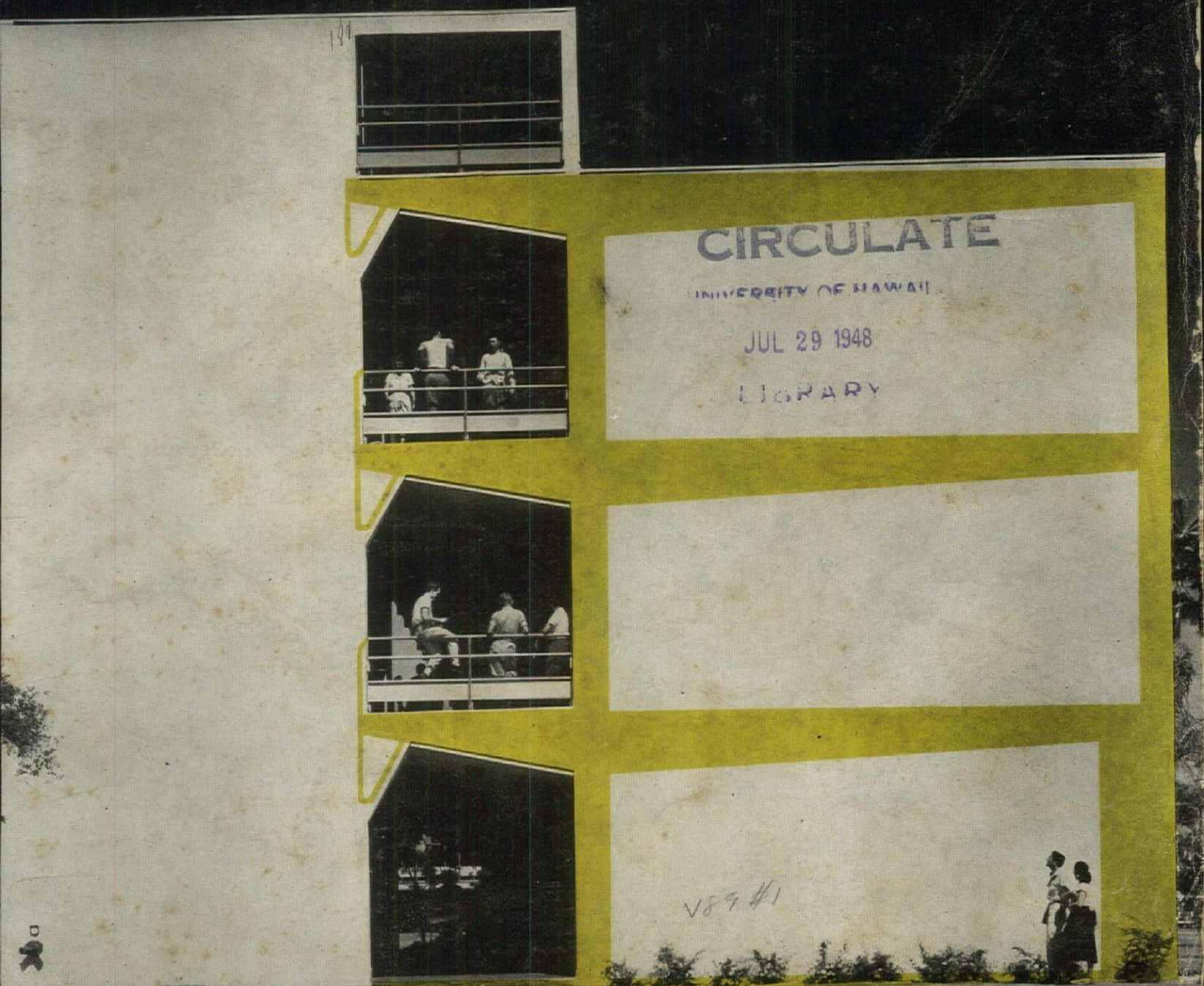
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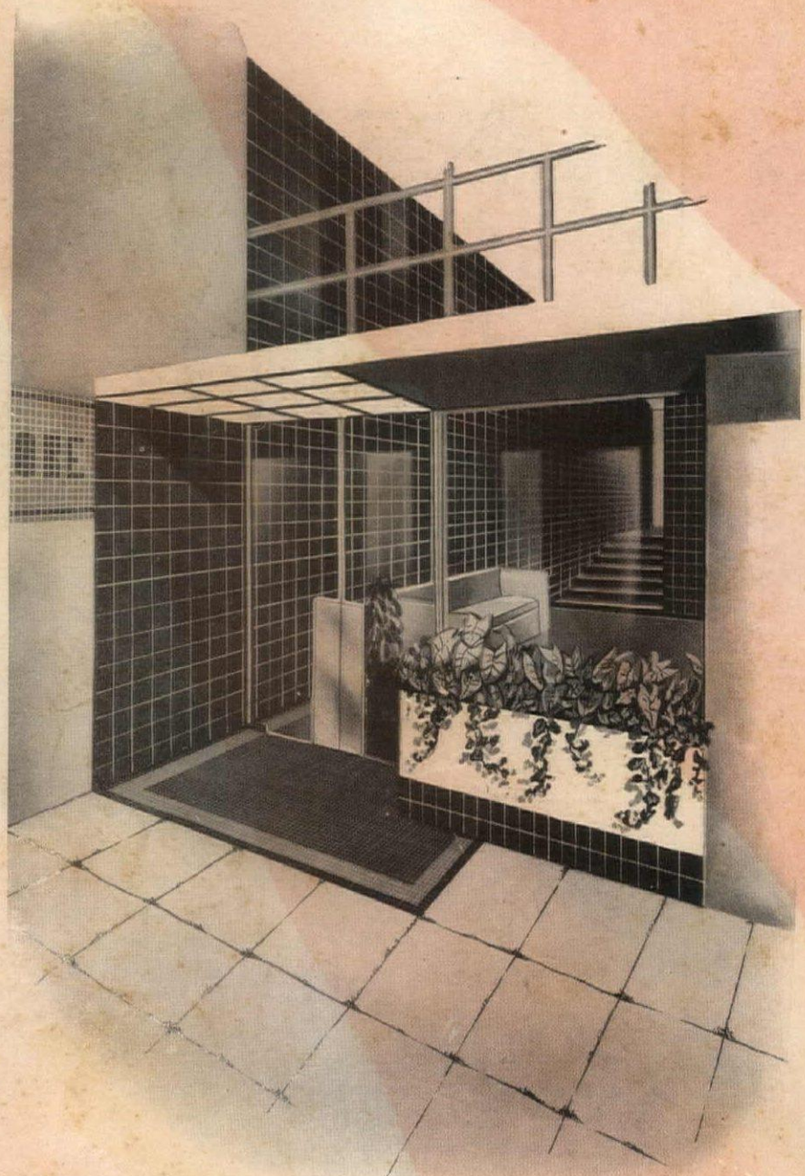
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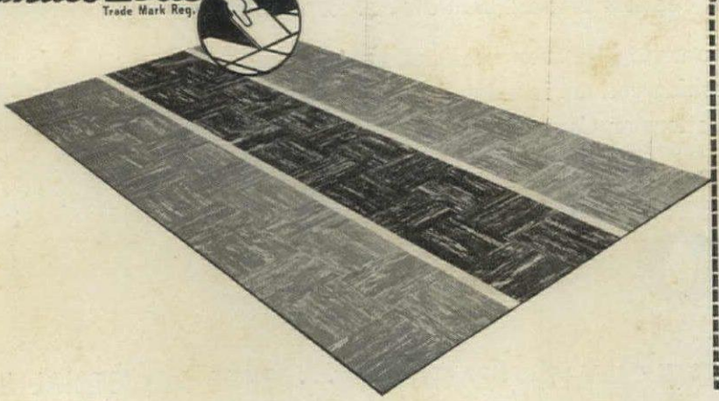
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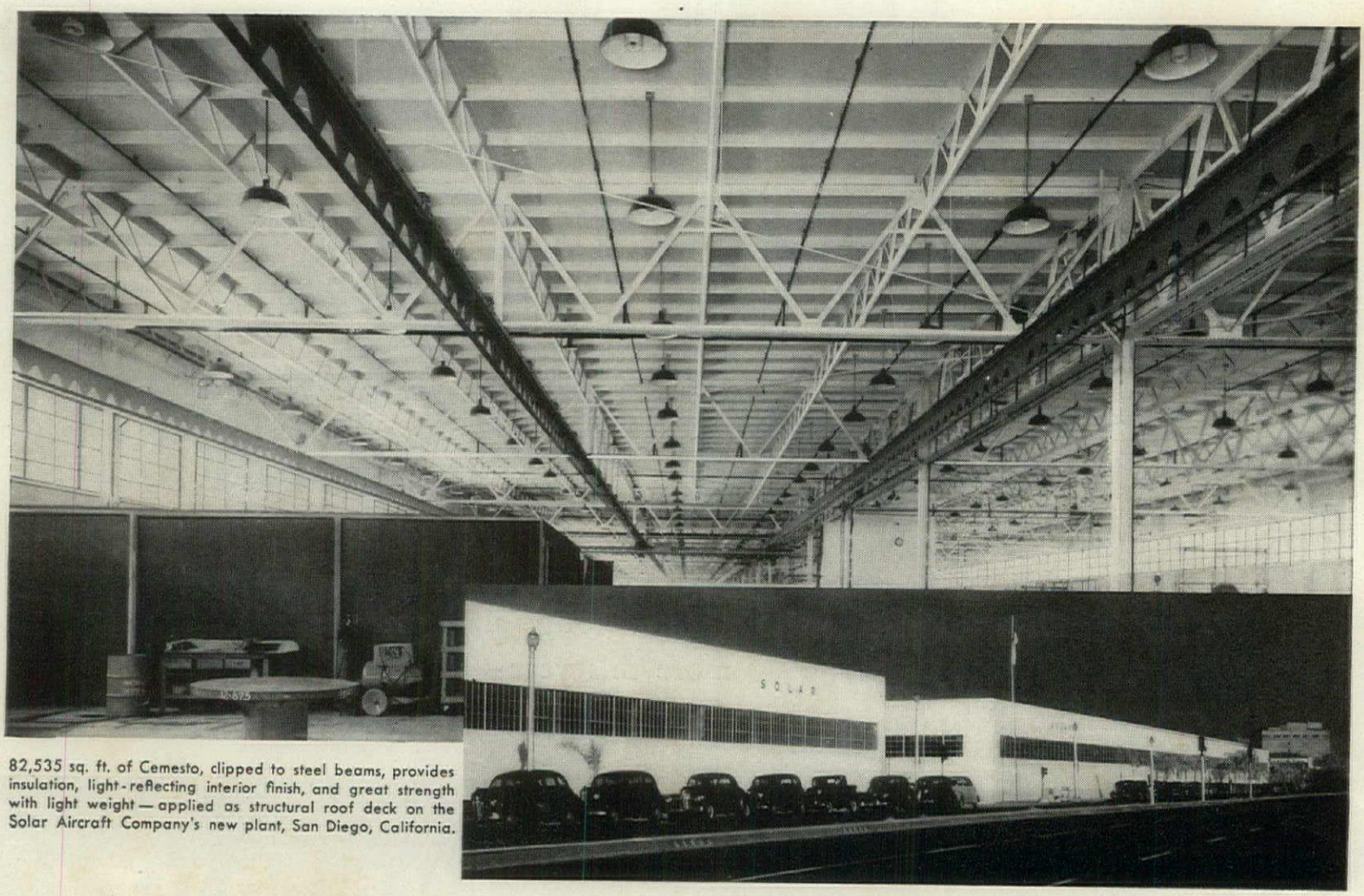
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MAGAZINE OF BUILDING

JULY 1948

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Cover photo: (University of Miami); Ezra Stoller: Pictorial Services.

examples of changes made during construction at low cost

DUST COLLECTING SYSTEM —its exact location was not determined until after the building was well along.

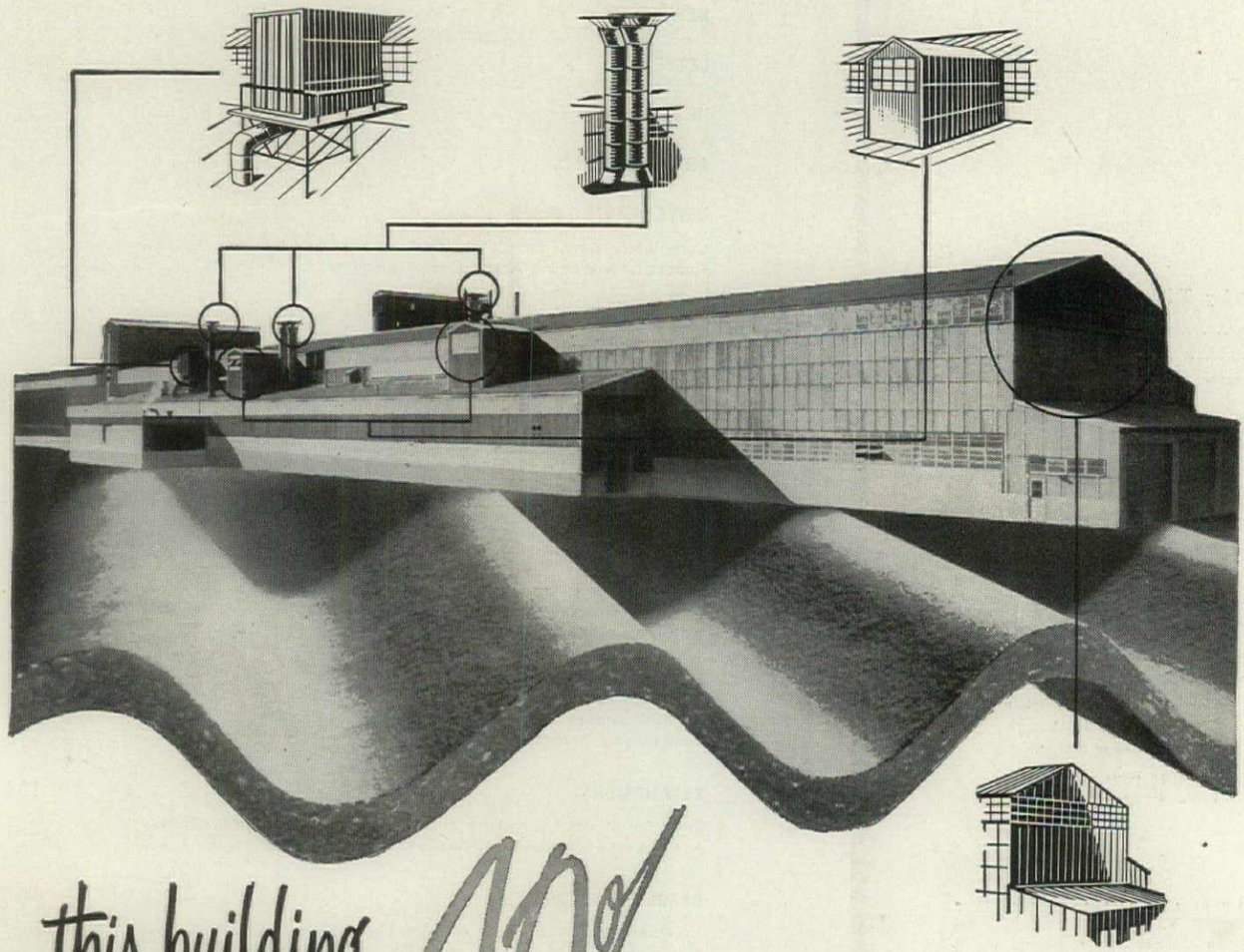
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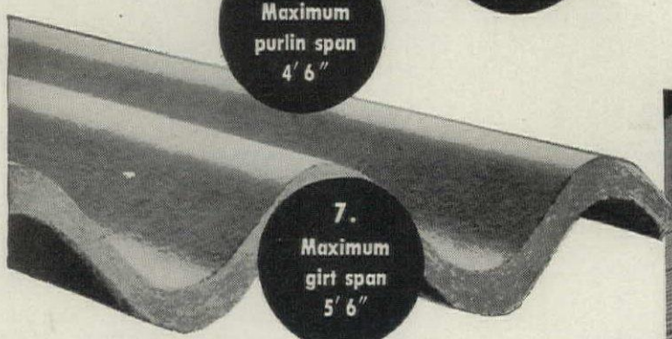
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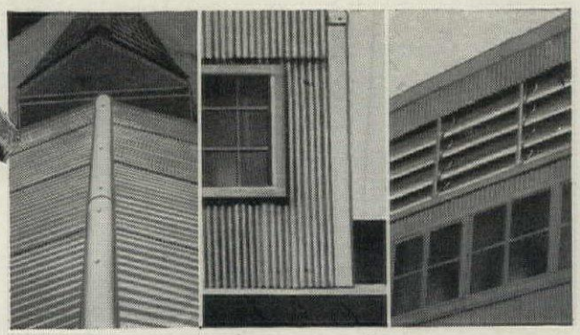
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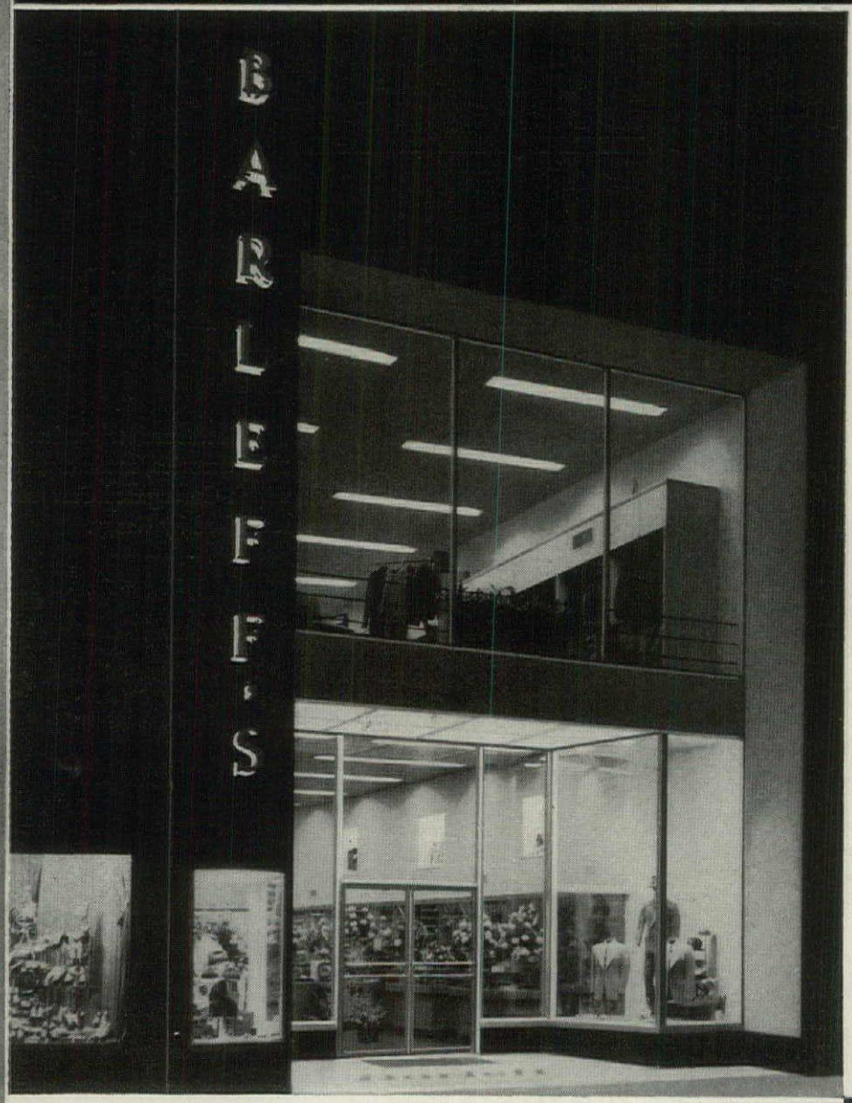
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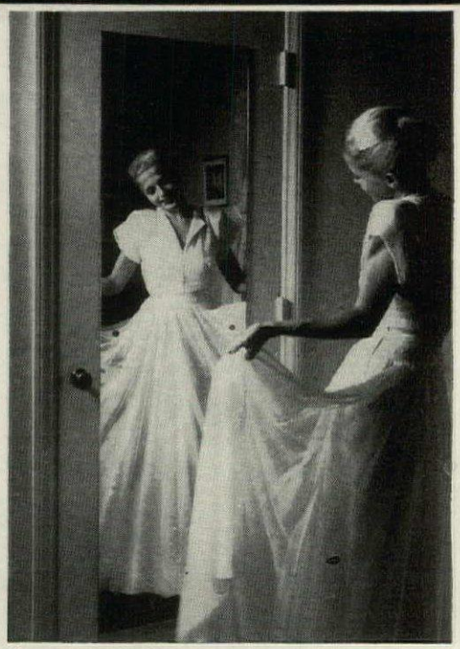
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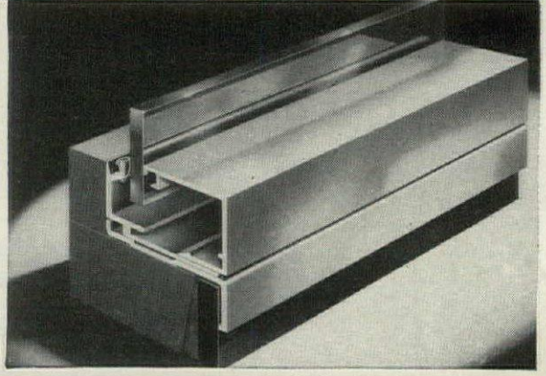


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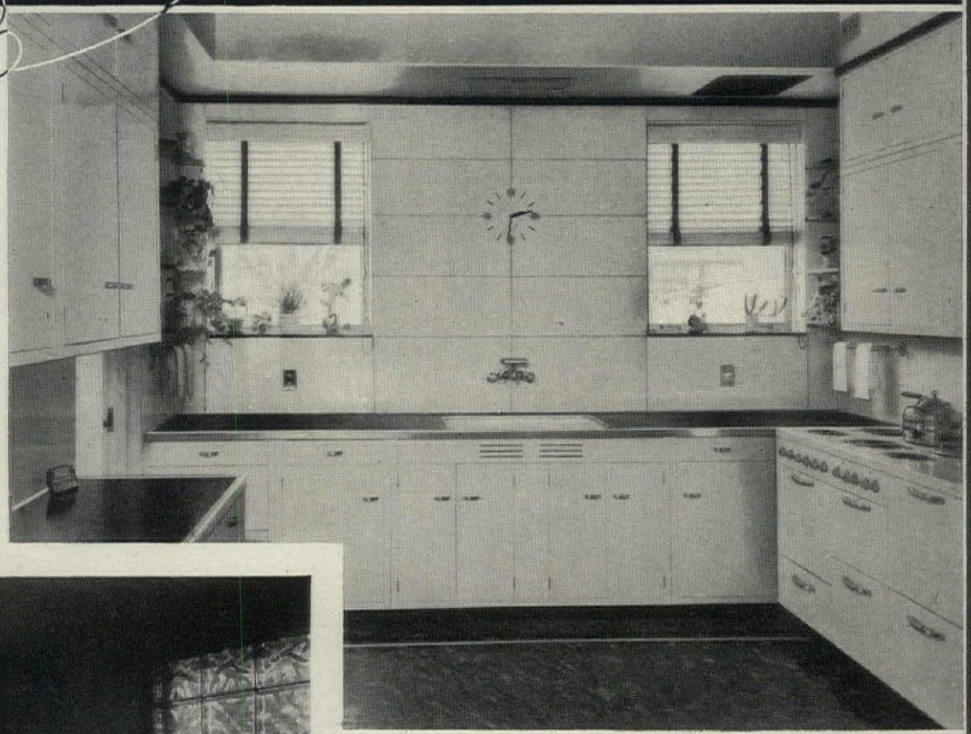
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AN "OPEN VISION" FRONT takes full advantage of the display possibilities of an attractive store interior. It creates customer interest, increases sales appeal, boosts sales volume. Merchants are anxious to modernize because a glamorous, up-to-date store means better business. And merchants know that "Pittsburgh" is the leader in the store modernization field. Sell "Pittsburgh" . . . the complete line of Pittsburgh Glass Products, Pittco Store Front Metal, and experienced crews of "Pittsburgh" workmen to make the installation. "Pittsburgh" service will please your customers . . . and help your business.

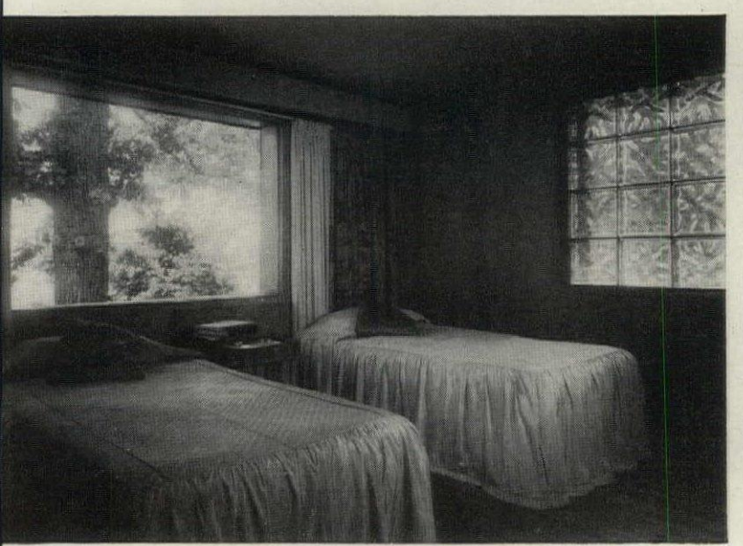


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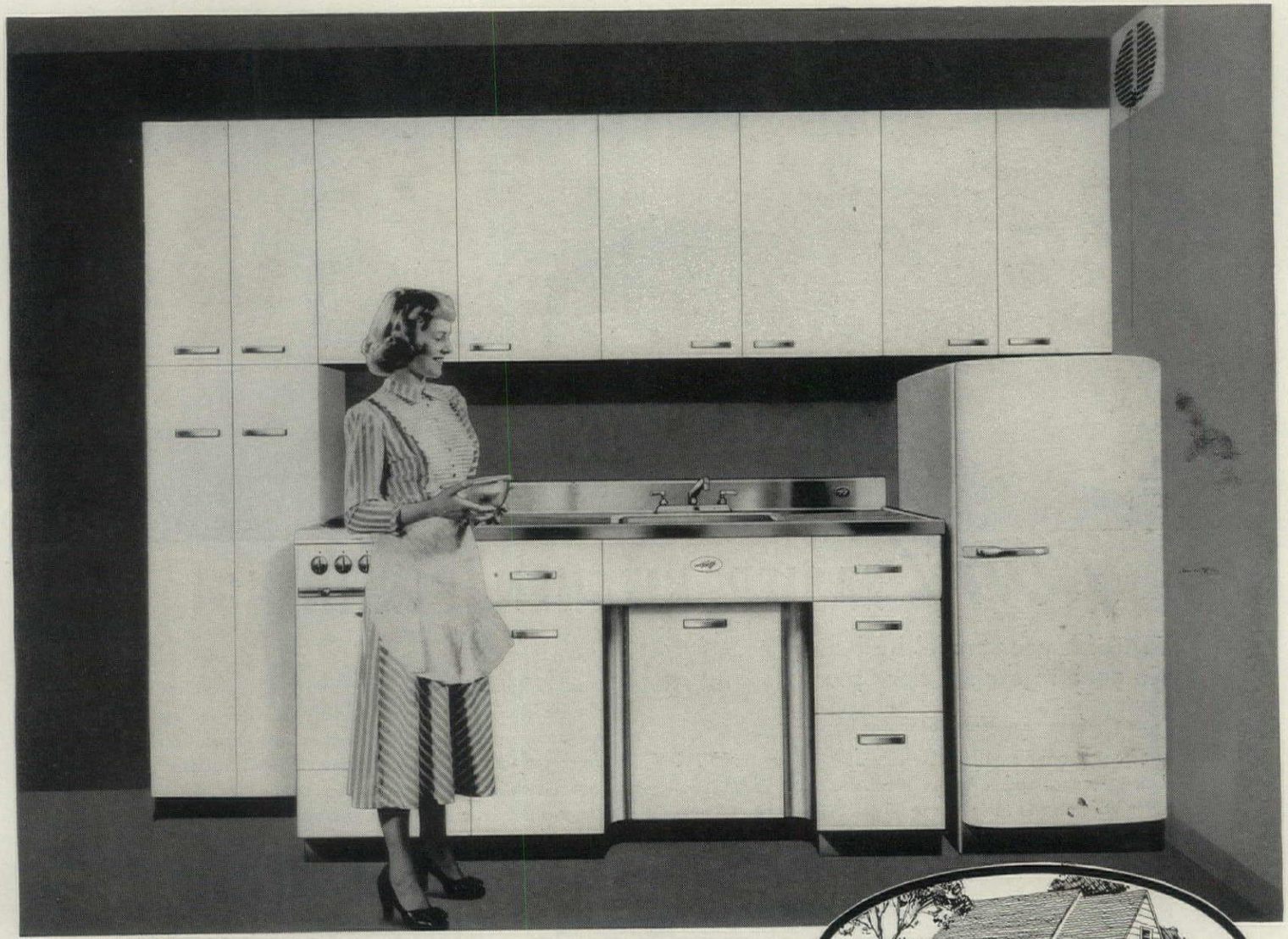
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BUILDING MONTH. The structural steelmen, meeting in New York, together sketched the skeleton of the Building market. Most reported a slackening of industrial building —this was especially marked in the Chicago area. All called apartment building the weakest spot in Building's still very solid boom. Investment builders, never enthusiastic about current costs, were showing increasing caution (but there were exceptions: in Atlanta, for instance, a bullish 2,500 rental units were underway). Nor, except for exploding Houston's plan to beat New York with a new "world's tallest building," did anyone plan to build office space much taller than five or ten stories. (Another important exception was still missing from the list of starts: a vacant lot on Manhattan's East River waited as Congress adjourned without approving the $65 million loan to build the UN headquarters.) But the smaller office buildings, together with retail stores, were still sturdily supporting the nonresidential sector of the boom.

As industrial construction lessened, other kinds of building moved up to take its place. A slight leveling off in construction costs was pushing ahead churches, schools, hospitals, other needed public building that can no longer be postponed. Bridge engineers, for example, were booked solid for the next two years (last month they started blasting away the old concrete footings of the Tacoma Narrows, which shook itself to pieces). Talk of five new dams on the Columbia River excited heavy construction; the disastrous flood which washed out Vanport was expected to speed appropriations.

There were some mixed signals on housebuilding. In May, house starts had reached 97,000, establishing an all-time monthly record. But May's residential building permits had dropped to 55,334, as against 64,454 in April. Some gloomily pointed to the drop in permits as the first crack in the housebuilding boom. But most cheerfully discounted it (last year permits also dropped in May, banged back later; builders now have a permit backlog).

There were depressing factors—not powerful enough to puncture the housebuilding boom, but likely to keep it from swelling beyond its present proportions. General tightening of mortgage money was felt almost everywhere. Lenders were becoming increasingly selective, and they were seeking slightly higher interest rates. When FHA's Title VI got lost last month in the angry Congressional row over the T-E-W housing bill, it was plain that building credit would shrink some more.

WASHINGTON

CONGRESS ADJOURNS

Housebuilding tops list of problems left for next year.

Congress adjourned without agreeing on any major new legislation on housebuilding. Not only did it pass up the T-E-W bill with its hotly contested provision for government-built low rent housing, it also turned down almost every proposition to put the giant arm of federal credit behind the efforts of private enterprise to build houses that veterans can afford.

Congress had spent plenty of time (and taxpayers' dollars) over the last year in Congressional hearings on housing legislation and on junket tours of Congressional "investigators" and in a dozen kinds of political housing maneuvers.

In the end, these maneuvers and the myriad pre-convention struggles within the ranks of both parties canceled each other out, and the housebuilding industry, which had hoped for still further liberalization of federal credit, emerged from the political free-for-all with not more but less.

The effect of this tightened credit may be felt first in the vital area of rental housing (see page 12). Also hit is the small but promising area of the factory-built house. Factory builders had looked hopefully toward government insurance for production loans, but this hope died along with FHA's Title VI.

Nor will the big housebuilders who have created mechanized site operations get the help they had sought on construction financing. The T-E-W bill's provision for renewal of Title VI had extended government insurance to construction loans for housebuilders. This hopeful proposal was also turned down.

Although rumors flew in Washington that Congress would be called back for a special session on housing, although the Republican vice-presidential nominee, Governor Warren, was reported in favor of such a session, it was not likely to take place. There were several reasons: President Truman's desire to put the Republicans on the spot on housing was checked by the certainty that the Republicans would use the special session to stir up the embarassing civil rights issue. Governor Dewey, now the uncontested leader of his party, was cool to the idea—he thought a special session would be an "imposition" at a time when most Congressmen need to start re-election campaigns.

The situation of the still-homeless veteran was measured by two telling VA statistics: 1) applications for VA-guaranteed home loans had dropped to 28,000 in May, as compared with a monthly rate of about 50,000 last year; 2) the average VA home loan is for a $9,000 house—the average veteran (according to government figures) can afford no more than a $7,000 house.

Back of the decline in VA loan volume loomed the unpleasant but unalterable fact: supply of four per cent money is rapidly drying up. But Congress bypassed any realistic action to make the VA program more workable by a small increase in the permissable interest rate (this need had been recognized in the shelved legislation to renew FHA's Title VI, which permitted a ½ of one per cent increase). It also failed

to adopt any conveivable alternative — nothing was done to encourage production of badly needed rental housing. Here is the scoreboard.

Congress did:

- Extend rent control to March 31, 1949 and continue the provision permitting voluntary 15 per cent increases in exchange for leases.
- Extend the life of the RFC and create therein a secondary market for both VA and FHA loans.
- Authorize FHA insurance for 95 per cent loans on veterans' cooperative housing. (This is not expected to amount to much—the room cost limitation of $1,350 is unrealistically low; cooperatives are difficult to get underway.)
- Authorize the VA to advance half the cost up to a total contribution of $10,000 to build houses for the nation's 2,400 paraplegic war veterans.
- Vote $10 million for stopgap housing for Columbia basin flood victims, earmarking 90 per cent of this for trailers.
- Increase the Disaster Loan Corporation's funds by $40 million, to be advanced in 10-year loans to individuals or public bodies (such as local housing authorities) to build permanent housing for Columbia flood victims.
- Vote $207 million for Army and Air force building (50 per cent earmarked for housing) and $209 million for Navy building (11 per cent for housing).
- Authorize the Public Housing Administration to turn over to schools temporary student housing put up under the Lanham Act, and extend the disposal deadline for government war housing to July 1, 1950.
- Authorize federally chartered savings and loans to convert to state charter—if states in which they are located permit shifts to federal charter.

Congress did not:

- Pass the T-E-W general housing bill, which included renewal of FHA's Title VI.
- Pass the American Legion bill for veterans' cooperative housing.
- Authorize a housing census as part of the general census of 1950.
- Approve the $65 million building loan for the United Nations headquarters.

STEEL RATIONING?

Priorities may come back

Just before it hurried off to Philadelphia the Republican Congress slipped a provision in the draft bill authorizing steel control. There it paradoxically limited its campaign platform to a pious mention of further study of "materials allocation." So far, the voluntary program of steel allocation run by the Commerce Department has worked fine. (Under it, Lustron last month got the steel to make 4,800 houses this year.) But most Washington insiders predict that defense production will bring a real steel pinch by the first quarter of 1949. Many believe that a government-run program of steel rationing will then be absolutely necessary. This means that Building, which thought it had seen the end of priorities, may once more have to measure its needs against a larger objective.

BUILDING MONEY

PRICE STRIKE

Insurance companies will start no more rental housebuilding

That the big insurance companies have been losing their enthusiasm for rental housing at current construction costs is not exactly news. Last month the Institute of Life Insurance made the break official. Insurance companies, the Institute said flatly, will start no more rental projects—until costs drop.

The Institute gave these samples of what is happening:

- Metropolitan, pioneer in the housing field, will start no new projects after its present commitments are completed.
- Prudential, which had a $100 million program charted in 1946, has shelved its plans after spending only $5 million on two small projects.
- Equitable was considering postponement of a large New York apartment development—even though it had already purchased the land and Starrett Bros. & Eken had started excavation.

What would bring these giant investors back in the building market? John A. Stevenson of Philadelphia's Penn Mutual gave a precise answer: a cost drop of 20 to 33 per cent.

TIGHTER CREDIT

But it will brake, not bust the boom

When Congress failed to extend the easy financing terms of FHA's Title VI, the National Association of Home Builders predicted that tighter credit would mean 100,000 fewer houses this year. But more detached observers doubted that the effect would be so serious.

In the first place, a large number of housebuilders have already turned back to the regular Title II program of mortgage insurance. Last year the monthly average of houses built under Title II was only 3,500.

By April of this year, the figure had climbed to 10,000; in May, it jumped to 14,520. This shows that as Title VI money became harder to get and finally unavailable, a large number of house customers were able to meet the somewhat stiffer terms required under Title II.*

The larger equities that both builders and buyers will from now on be required to put up are not unwelcome to lenders and others concerned with the future of mortgage values. They will undoubtedly operate as a check on the still-rising curve of loan inflation. But they are not expected to drive any sizable number of customers out of the present boom market—or to handicap builders who have established lines of credit. In other words, customers will pay more of the current price of houses out of current soft dollars, write less of the current price into loans which may have to be paid back in the harder dollars of the future.

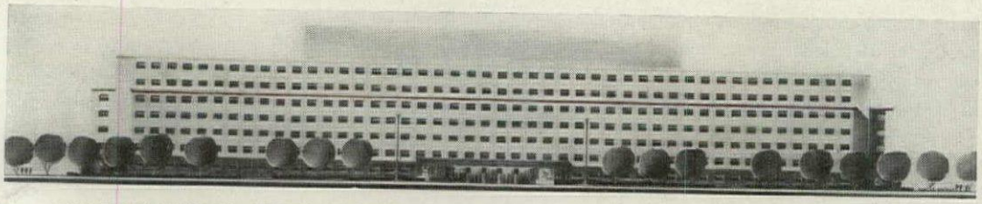
Financing will, however, be much tighter for large-scale rental housing. Builders agree that the room cost limit ($1,350) set under Title II is completely impossible at current construction costs. But the drop in rental housebuilding will show up much more next year than this. So many applications for rental projects were rushed through under more favorable Title VI terms last spring that 1948 is expected to show as a record year for rental building.

UTOPIA LIMITED

Norris buyer promises fair prices, continued high planning standards

TVA's model town, Norris, Tenn., was a planner's dream. It was laid out on half-acre tree-shaded lots, ringed by garden plots and by woodland. Its 341 pleasant low-cost houses were carefully varied in siting and in design. Wild roses rambled along its gently winding roads; all signs and billboards were banned. There was not a single honky-tonk to be seen.

Norris was a nice place to live. It was cheap—government workers at TVA and at nearby Oak Ridge paid rents averaging about $35 a month, about $2 more for electricity. Most houses were heated as well as lighted by low-cost electric power. When



FIRST BIG FEDERAL OFFICE BUILDING to be built since the war will soon be started in Washington. It will cost $27,850,000, house government's accounting offices. Perspective shows that government planners have for the first time forsaken Post Office Federal in favor of a very tentative gesture to functionalism. Huge building will be a solid block.

** Title II allows a 90 per cent loan only on the first $6,000 of the house price and 80 per cent thereafter; Title VI allows 90 per cent loans on houses costing up to $9,000.*

TVA architects Roland Wank and Earle Draper made the plans, back in 1933, they provided a school, a community building, a beauty parlor, a drug store.

There were no politics, no civic problems. The unofficial "mayor" complained that he had nothing to do. TVA kept the houses painted and the roads smooth, ran the community carpentry shop and twice-weekly movies in the school auditorium.

But TVA had no intention of playing landlord to Norris forever. When Congress authorized TVA to spend $3½ million for a permanent town instead of the estimated $1 million a temporary camp for dam construction workers would have cost, it also directed that the town be sold eventually into private ownership. Unlike the purchasing priorities later set up for government war housing (veterans, present occupants, etc.), no strings were attached to this directive.

Last month, while a thousand of its citizens gathered on the green lawn of the schoolyard, Norris was put on the block. Bidding lasted only 19 minutes. It took only three of them to eliminate the corporation organized by Norris residents, who had put up cash down payments and hoped to buy their houses at wholesale prices. TVA had set a minimum of $1,849,750; the citizens' group dropped out after its first bid—$1,900,000.

The auctioneer's hammer fell on a $2,107,500 bid. The buyer was a 27-year-old Philadelphia real estate broker and World War II veteran, Henry David Epstein. He immediately boomed some promises through the loudspeaker: all tenants would have first chance to buy their homes; Norris would be run in the "same manner"; the new ownership intended to make it "not only the finest but the biggest model community in the U. S."

As to just who the new ownership was, Epstein was mum. A newcomer in Philadelphia realty circles, he is backed by an unidentified syndicate of big-money men. He has made a specialty of buying up rows of property in Pennsylvania, then reselling to individual home buyers.

Norris was an enviable buy. Its planners had allowed for expansion of its present 1,250 population to 10,000. Some 800 graded lots, in the heart of its 1,284 wooded acres, were ready for building. And in crowded, smoky Knoxville, only 21 miles away, hundreds of customers watched hopefully.

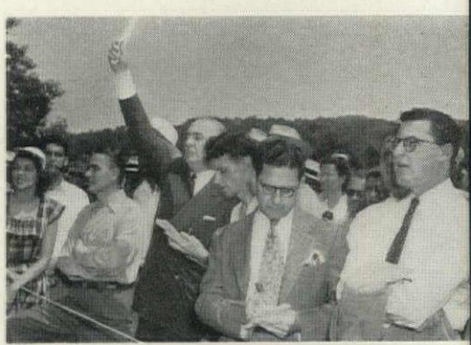
Terms of the sale give present householders a year's lease. Epstein eased some of their worries on reselling prices. All prices, he said, would be set by FHA and VA appraisals.

Then he took a step even more reassuring to residents. He appointed one of Norris' original planners, Earle Draper, as architect in charge of all future development. Nothing would be built, he said, without the approval of Draper and of the citizens' planning commission.

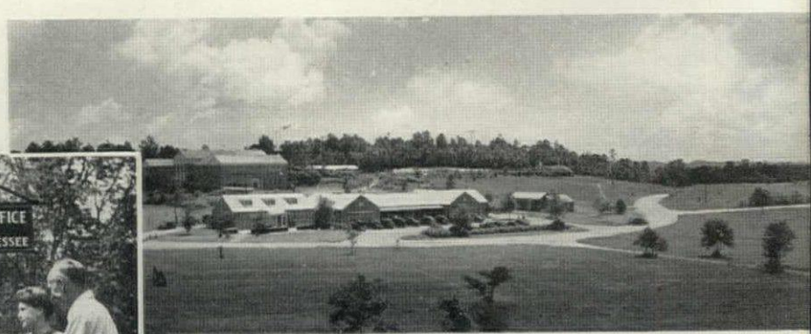
Acme Photo



VANPORT CITY, said FORUM in telling the story of this $26 million housing giant (Aug., '43), would have to be "washed out as a legitimate war expense." Last month, with a toll of 15 lives, this all too literally happened. When Vanport was built to house Kaiser shipyard workers, Army and Navy officials warned about locating it on bottom land behind dikes, but finally decided to take this "calculated risk" as a war necessity. Safer sites were available but were not conveniently located.



NORRIS, TVA model town was sold at auction to high bidder Henry Epstein (at far right). Bidder for cooperative corporation organized by town's residents, Walter J. Gessell (hand up), lost out after first bid.







DESIGN

CURVES AND CHARACTER

A.I.A. ponders nature of man, buildings and atomic age architecture

Sitting inside flat walls with square corners, Aristotle devised the system of logic which some think delayed the development of Western science by centuries. Would he have been less cocksure about the "law of the excluded middle" if he had lived inside curved spaces?

This question, among some grimmer ones, was placed before the 80th annual convention of the American Institute of Architects at Salt Lake City last month. It came from the dean of U. S. public health men, Dr. C.—E. A. Winslow, professor emeritus at Yale's School of Medicine and a man who has done a lot of thinking about the effect of buildings on people. His suggestion:

"Aristotelian and Thomist philosophy may not have been unrelated to the fact that men lived in spaces bounded by flat walls with square corners, fixing in the very basis of the mind the concept of rigid law . . . May not a child who . . . grows up in the curved spaces which are now possible . . . have a mind-set which is far more flexible, more imaginative, more adaptable to a world which has infinite possibilities?"

This was a sample of the heavy backbone of philosophic inquiry which sharply differentiated this A.I.A. convention from every previous one. Perhaps the Institute's announcement of a committee to work with the government on creating an architecture for the atomic age diverted the convention to sober consideration of the nature of man and the meaning of architecture in relation to modern man's complex needs. At any rate, tedious and tendential as some of the papers were, this area of the convention's discussion marked the first profession-wide efforts to relate modern architecture to similar developments in modern philosophy. These efforts even led to discussion of the long-taboo subject of esthetics, notable for rosy-cheeked Alden Dow's vivid explanation (with colored slides of flowers and buildings) of how his design concepts are formed and expressed.

Not that all sessions were devoted to what old-guard functionalists consider cloud-walking, by any means. The vital subject of urban rebuilding got a clarifying going over, for instance. Thomas Kent, the phenomenally young (31) head of San Francisco's phenomenally effective City Planning Commission, hit a new note. He urged that a modern, city-wide, mass-transportation system should have priority over everything else in stopping urban blight. Only then, he said, can housing, hospitals, parks and schools be sensibly placed and protected against urban blight.

For the most part, business meetings proceeded with the quiet boredom which usually attends A.I.A.'s organizational affairs. (A.I.A. is notoriously undemocratic, most elections are uncontested, most decisions ready-made). But there was one unexpected struggle. Inspired by a rebellious younger group, 140 delegates and members signed a petition urging the convention to go on record as believing that the next (1949) Gold Medal be belatedly awarded to the world's greatest architect, Frank Lloyd Wright. In spite of the Resolution Committee's effort to keep this resolution off the floor, it was steam-rollered there by newly-made Fellow Pietro Belluschi and passed with only a few timid bleats of "no."

This year's Gold Medal went to octogenarian Charles D. Maginnis, a Boston architect responsible for some distinguished U. S. ecclesiastical architecture. Re-elected president Douglas Orr announced this distinguished list of new Fellows:

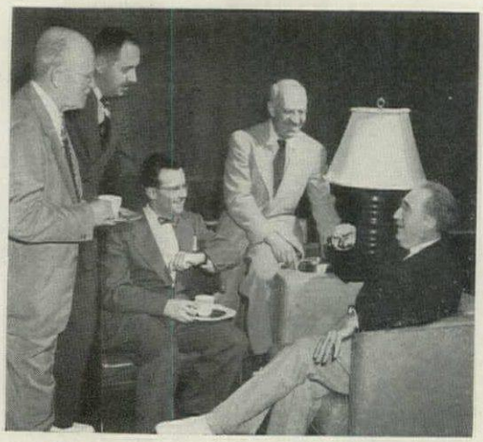
Leon Arnal, Pietro Belluschi, Francis Bulfinch, Cameron Clark, George Cummings, Gardner Dailey, Paul Gerhardt, Jr., James Byers Hays, Alexander Edward Hoyle, Francis Keally, Edwin Lundie, George Martin, Edward Neild, Robert O'Connor, Edward Palmer, Jr., Leonard Schultze, Fitzhugh Scott, Philip Small, Joe Frazer Smith, Hart Wood.

PEOPLE

ITINERANT MAN, IMMOBILE MAN

For 30 years at the University of Minnesota, well-loved **Leon Arnal** has dropped cigarette ashes and kindly encouragement in almost equal abundance on students' drawing boards. Born in France, wise, witty Arnal was schooled in the great humanistic tradition of French Classicism. To these Gallic roots, he may owe his genius for logic, proportion, taste. To his own genial and inquiring temperament, he undoubtedly owes his famous ability to lead students out of the blind alley of tradition and into the creative mainstream of contemporary architecture.

Arnal came to the U. S. in 1911, to join the late, great French critic Paul Cret at the University of Pennsylvania. He returned to fight for France in World War I.



ARNAL FAREWELL: professors Robert T. Jones, Robert Cerny; Chicago planner Reginald Isaacs; Roy Childs Jones, head of departments; Leon Arnal.

With the British Military Cross in his lapel, he sailed back in 1919, settled down on the faculty of what was then a raw, new architectural school at the University of Minnesota. There he set about briskly puncturing provincial veneration of the Beaux Arts forms in which he himself had been educated, prodding students to the experimental work in which he believed a native American architecture would be found.

Last month, as Leon Arnal announced his retirement, some 500 practicing architects throughout the briskly building Northwest looked back to the teacher who had given them confidence in the new forms of a new time—and, above all, in themselves. They reached in their pockets to give Arnal a surprise trip to his beloved France. Many of them traveled to Minneapolis to honor their old professor's farewell. But one more U. S. thank-you to this distinguished Frenchman was still ahead: in late June the A.I.A. (see left), awarded Minnesota's Arnal one of its top honors, made him a Fellow.

Herbert U. Nelson, a Minnesota Swede who became the potent head of the potent National Association of Real Estate Boards, was enjoying as much of a vacation as he has ever permitted himself. Touring Europe to examine housing and "renew international realty's prewar ties," Nelson made his first stop in Sweden. Back across the Atlantic came the first of his "Letters Home," which showed that his prose* had gained piquancy. Samples:

"That people make slums is a fighting phrase in some groups at home. Slums are supposed to be the malicious creation of property owners. One can get a little insight into this question by a visit to the oldest parts of Stockholm . . . Here many of the buildings date back to the year 1600. The whole section is beautiful . . . Hours spent in inspecting this district would be pretty convincing to any doubter that slums anywhere are just bad housekeeping . . .

"Visby, Ninth Century city on the Baltic Island of Gotland, doesn't have any of the new look . . . Families living in these 600-year-old houses think it a privilege to have a good seasoned house properly aged. We've heard of folks at home living in houses less than a half a century old who feel that they are underprivileged and are being exploited by plutocrats."

Nelson will return to report to NAREB's annual convention in New York City the week of Nov. 15.

Milton Brock, top-rung Los Angeles housebuilder, bragged an impressive brag for his industry. Speaking in opposition to the W-E-T housing bill, Brock told the House Banking Committee that "homebuilding production has outstripped, on a percentage basis, one of the greatest mass production industries in this country, namely automobiles. The 1947 production of passenger

** Mr. Nelson, a forthright man, possesses one of the best prose styles in Washington, and is distinguished for his ability to speak without the assistance of "public relations counsel."*

automobiles was approximately 77 per cent of the peak year of 1929. The home building industry's 1947 total was 166 per cent of its 1929 figure and 90 per cent of the 1925 figure, the greatest home production year in history."

Paul Trousdale, big Los Angeles housebuilder, took a tip from progressive mortgage lenders and offered some new market bait. The bait: one year's free life insurance to home buyers. His policy provides full payment of the mortgage (up to $10,000) if the owner dies, monthly payments in case of disability. After the first year, the owner can include premiums in his regular payments.

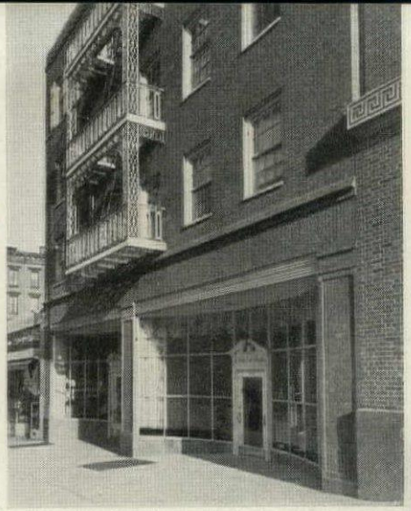
The completely **Immobile Man** loomed larger on the Twentieth Century's forbidding horizon as the U. S. home began to feel the impact of television. While the television industry looked to the Republican National Convention for the same boost that radio got from the party conventions of 1924, the New York *Daily News* alertly opened its own television station, WPIX. Devoting a number of its stunted newspaper pages to drum-beating for the new station, the *News* prophesied that video will reshape U. S. domestic architecture.

Under the headline, VIDEO EASES PIANO OUT BACK DOOR, the *News* reported that "professors, architects, and interior decorators" appraise television as a "drastic addition to the American Home."

On just how drastic this may prove to be, the *News* had plenty to say: "You cannot treat a television set in an indifferent manner. It demands a preferred position where it can be seen as well as heard. It dominates a room. And because of what it offers to the eye as well as the ear, the home owner has insisted that the interior decorator choose and arrange the other furniture . . . to make the television set the focal point of any room arrangement."

Where the television set has come into the home the separate dining room has disappeared, the *News* finds. The family has begun to eat its meals in the room where it has put up its television set. It has postponed dish washing till the favorite program has faded from the screen. Some families have even taken to sleeping in relays in order to look after the large number of firmly rooted guests who have come over to look at the television.

Architects and designers interviewed by FORUM take no light view of the impact of television, but are disposed to postpone detailed consideration until the time when the television screen will be enlarged to a size occupying an entire room wall. One immediate problem considered was the most appropriate location for the present comparatively portable sets. Best audience concentration was generally held to be achieved by placing the machine in the bathroom. But this, of course, involves redesign of most bathrooms, and some people.



Alfred Cook, Carl Klein, photos

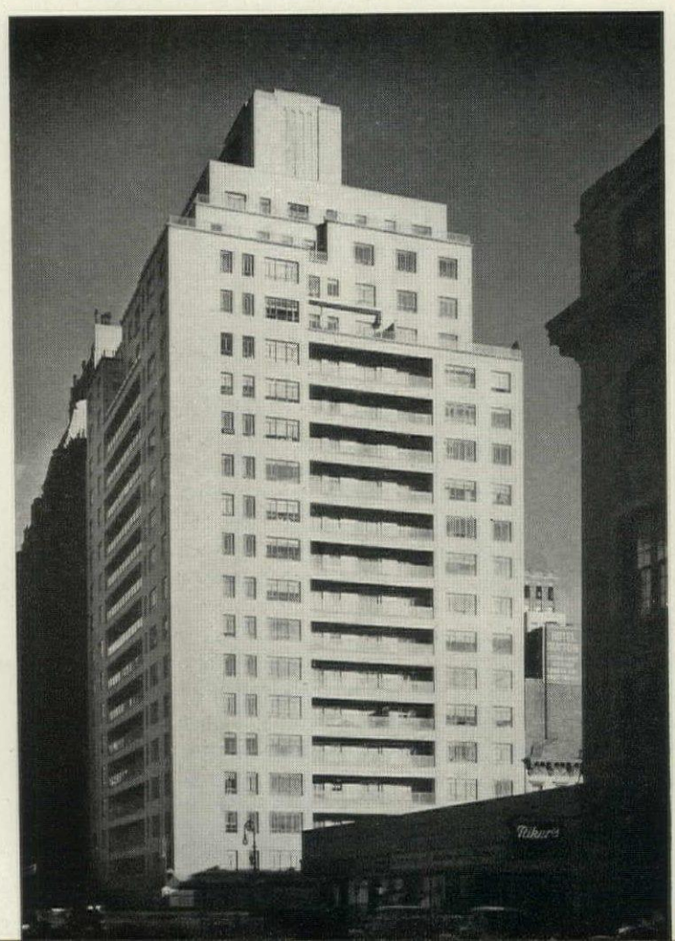
Brick building at 72nd Street and Third Avenue was commended by jury for artistic handling of fire escapes, garden treatment.



IMPARTIAL EYE

For the first time in seven years, the New York A.I.A. chapter decided it had enough new apartment houses to look at to resume its annual medal awards. With careful impartiality, the chapter looked favorably upon one traditional, one modern building. To Louis E. Ordwein went one apartment house Medal for the apartment-and-bank building surmounted by a white-painted cupola. To Emery Roth went another apartment house Medal for the 18-story apartment building below.





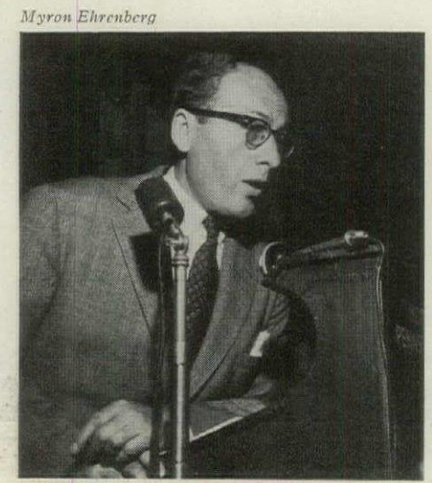
In 300 E. 57th St. building, jury liked blending of stone and brick and skillful treatment of balconies.

DEWEY'S HOUSING POLICY: Key to the future is in New York State job

For a clue to the future of national housing policy, it was more profitable to look at the record of Presidential nominee Dewey than at the few words finally inserted in the official Republican platform. Although Governor Dewey has made few statements on housing (see FORUM, June '48), his thinking on the unique constellation of forces which make housing one of the most controversial sectors of our national life is written plainly in the work of New York State's Division of Housing.

The Division of Housing has been operated since 1944 by ex-trust-buster Herman T. Stichman. A driving, highly efficient administrator, Stichman is a good example

Myron Ehrenberg



STICHMAN: No. 1 houser

of Dewey's famous ability to select key lieutenants and then delegate them ample responsibility to get the job done. In what looks like a Republican year, New York's Commissioner of Housing Stichman looks like the most influential housing man in the country. Either officially or unofficially, Dewey will turn over the housing problems of the nation to the man who has turned in an excellent job for the State of New York.

The key to Dewey's policy—and Stichman's operations—is his concept of government as a *coordinating* agency in the field of housing and slum clearance. This means a great deal more than lip-service to the well-established American principle that public effort should supplement and in no way pre-empt the role of private building enterprise. It means that the State of New York has developed its housing program far beyond merely building low-rent projects for a single income group.

Under Dewey, the Housing Division has carried on an active program of drawing every available private investor into housing operations by giving the assistance that a public body is best equipped to give —able administration of the state limited-dividend and tax-exemption programs, local market surveys, advice on site selection and planning, liason with municipalities, labor unions, other business interests in the community.

One of the few states to take action on veterans' emergency housing, New York, at Dewey's request, appropriated $70 million for this purpose. One of the means the state quickly turned to was the pioneering conversion of huge surplus military installations to emergency housing. When this whole program started, Dewey issued a directive: it was to be carried out so as not to interfere with the private production of houses; great care was to be taken not to divert materials, labor or sites that might be needed by private builders.

Another characteristic element of Dewey-Stichman thinking is the "laboratory" and "yardstick" approach. In the veterans' cooperative housing developments now getting started, Stichman hopes to use the resources of the state (which acts as supervisor) for all they are worth in the search for better building methods, better working arrangements with labor, etc. The same emphasis is basic in the state low-rent housing program—with all findings to be made available to private housebuilders, most of whom lack the resources to undertake such research for themselves. In this way, Stichman expects to make the low-rent housing program serve private building enterprise as well as the special income group for which it is intended.

Last month a conference on housebuilding in New York offered a good sample of the Stichman method. Cutting across all professional and business boundaries, Stichman invited an imposing battery of industry specialists to New York's Hotel Pennsylvania, outlined a provocative list of subjects—the low-cost house, the industrialized house, the planned neighborhood, outlook for the building market, materials distribution, etc. The result: one million words (by count), most of them focused with unusual precision and pithiness on the hydra-headed problems with which the housebuilding industry continues to wrestle. Samples:

Tougher Credit Needed — RAMSEY WOOD, *economist, Federal Reserve System*

Of the mortgage debt now outstanding, a good deal more than half has been written during the past five years, generally on the basis of a high ratio of debt to value. Lenders have taken the risk of loss on a large volume of loans based on inflated values. Borrowers have assumed the risk of carrying large debts with incomes that may not stay high. And the government shares both of these risks not only under specific guarantees, but also as a result of the general expectation that it will not permit a ruinous liquidation to take place.

Disregarding the rise in mortgage debt which has already occurred and the high

Republican Platform—

Housing can best be supplied and financed by private enterprise; but government can and should encourage the building of better houses at less cost. We recommend federal aid to the states for local slum clearance and low-rental housing programs only where there is a need that cannot be met either by private enterprise or by the states and localities.

levels already reached by real estate prices and construction costs, some people urge, in effect, that any slowing down in real estate sales such as has been reported in some areas this spring, should be counteracted by easing credit terms to borrowers. Under present conditions, however, lenders are inclined to tighten rather than ease terms, and it has therefore been advocated that lenders should be permitted to shift more of the risks of lending to the government.

Should the government support inflationary conditions in real estate and construction by undertaking to ease credit terms still further? Sooner or later, when buyers have been priced out of the market beyond the capacity of reasonable, or even unreasonable, credit terms to keep them in, we shall face a period of readjustment. This readjustment will be difficult, starting as it will with high prices, a large volume of debt, and high construction costs.

How can the necessary adjustments be made when the boom ends? Construction costs are notoriously slow to decline, and as long as new houses cost appreciably more than old, or too much for the income of buyers, there will be little building. Thus those who rely on easy credit to meet the present housing need may find easy credit standing in the way of the improvement of housing in the longer run.

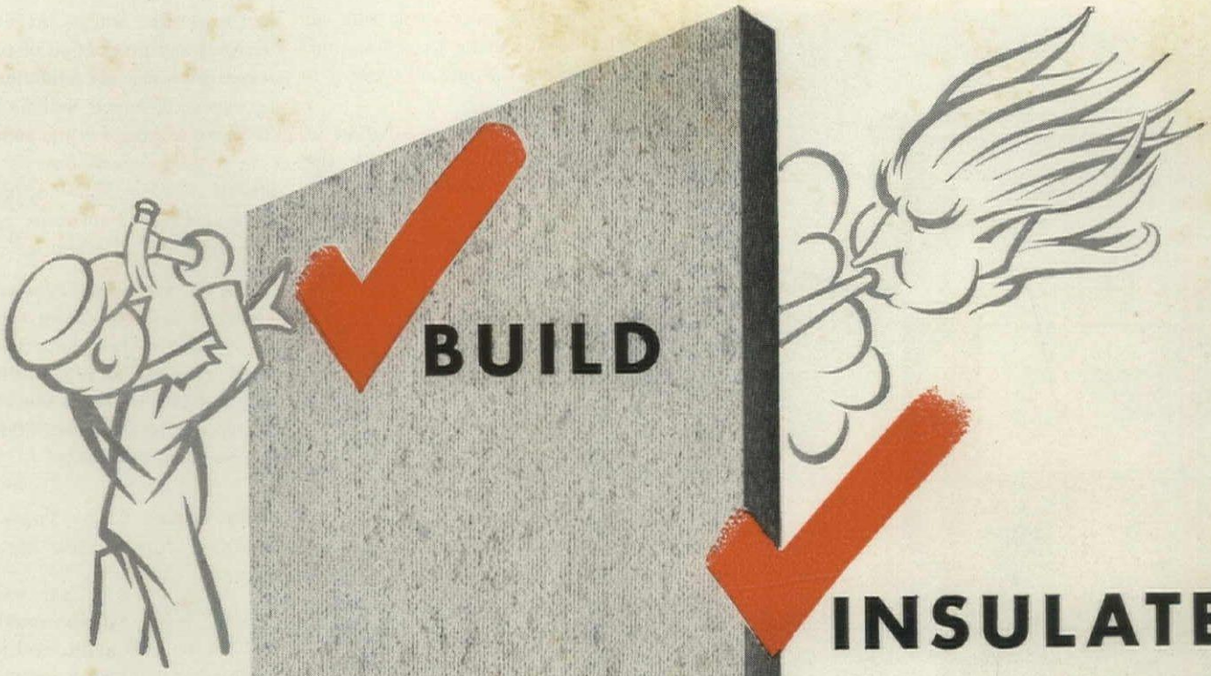
It is these long-run considerations which should guide mortgage credit policy. This policy should be designed to help achieve a sustained high level of residential construction, and one aspect of this task is maintaining prices, indebtedness, and costs in a flexible balance with incomes and with economic activity generally—not during a short inflationary period, but over the longer term.

After the Bust What?—IMRE DE VEGH, *Consulting Economist, Pell, DeVegh & Co.*

Housing shortage will last as long as the inflation lasts. New residential construction at the rate of less than one million units per annum cannot possibly cope with the increase in the population and their incomes that has occurred since the last housing boom passed its peak 20 years ago.

Real estate values will remain high as long as the boom and inflation last, but they are likely to weaken somewhat before the crash. The market in real estate is like one of those child's games in which the

(Continued on page 18)

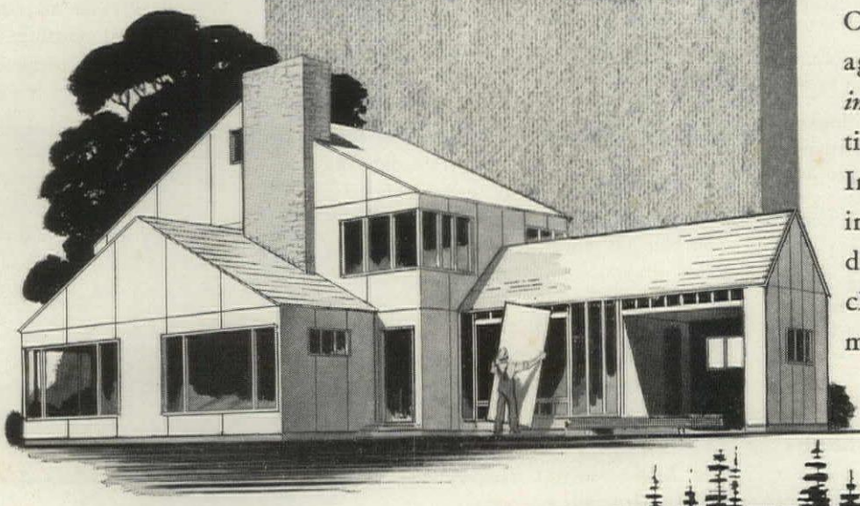


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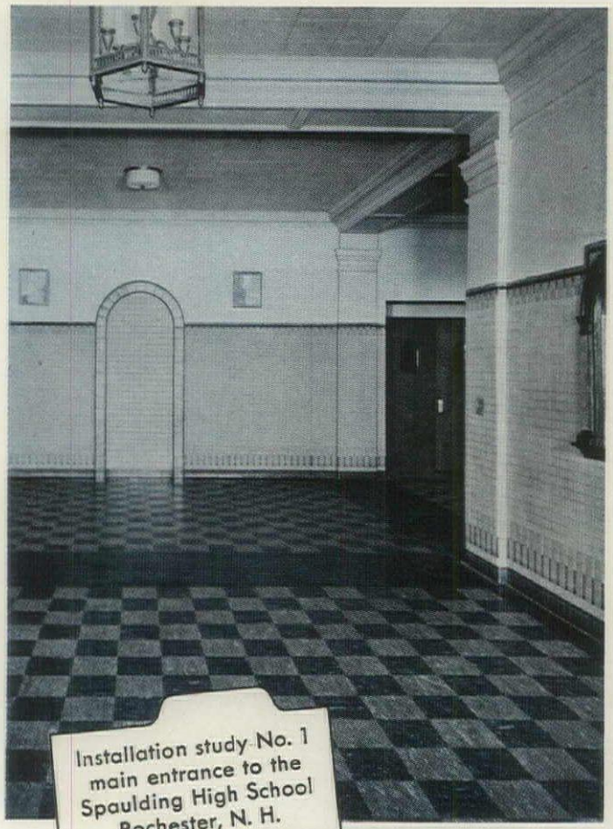
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loser is the one who gets stuck with an object that is rapidly being passed around. This was obvious in the late 20's and it is likely to be repeated.

How long will the present inflation in consumer income continue? When the U. S. stops lending we shall have another 1921, or if we go on long enough, another 1929-32. Whether such a slump will have a minor effect on real estate values as 1921 did, or a disastrous one, as 1929 did, depends on how many more years of relatively high activity we shall have before this slump comes.

The relatively long life of residential housing means that in planning for the future one should pay attention not merely to cost and price fluctuations over the next few years, but to the major hazards of the more distant future. Beyond the slump, in the very long run, real estate values will be determined by very different considerations. A third World War within our lifetime is a distinct possibility, and in a Third World War, there is bound to be a revolution in real estate values. In that war, for the first time, American cities will be just as vulnerable as European cities have been in the last one. The Armed Forces Munitions Board has been doing a great deal of planning for industrial mobilization in case we have another war, and some planning for industrial decentralization and dispersal. No such planning has been started with respect to housing.

Decentralization is desirable both for military value and for its own sake . . . The tendency towards decentralization and the greater long term security that goes with it will tend to protect real estate values much better in outlying districts than in urban centers. The correct housing policy is thus much more than a policy for building houses. It is primarily a positive suburban and rural development policy, a policy of slum elimination through municipal parks, a policy of roadbuilding, of parkways and of new rapid transit systems. It is so vast in its implications that it could prevent a slump in the U. S. after the loan-financed inflation comes to an end.

Price Drop—THOMAS GRACE, *New York State Director, FHA*

Manufacturing companies had completed 64 per cent of postwar expansion programs at the end of 1947, and expect to be about 85 per cent completed at the end of 1948. For this plant expansion and equipment, about $15 billion may be expended during 1948. The completion of this plant expansion is encouraging to the construction industry inasmuch as its speedy completion will relieve the overall demand for labor and materials, and as the expansion work declines and production of consumer goods increases, a general reduction in prices can be expected, which will be helpful in the lowering of prices in the construction field.

Interest Rise? — JOHN ADIKES, *President, Savings Bank Association of the State of New York and of Jamaica Savings Bank*

The current demand for money this year (business loans, building, etc.) amounts to $17½ billion. The estimated supply (savings) amounts to $12.2 billion, leaving a deficit of $5.3 billion. I think this will result in competition for the available money and increased interest rates.

Equity Holder's Boom—THOMAS H. QUINN, *president, Inter-County Title Guaranty & Mortgage Co.*

Never before has the realty equity holder's net been so great, and because of the shortage of manpower and materials, never before has the average equity owner permitted his property to deteriorate and depreciate to the extent he has during the last five years, thereby jeopardizing the mortgage investment . . . The mortgage investor should secure at least a 5 per cent interest rate and a 5 per cent amortization annually to protect himself.

But Equity Capital is Scarce—EDGAR KAPP, *Lehman Brothers*

We have a shortage of equity capital, especially in rental housing. The typical problem in rental housing is to find a mechanism to make equity investing there as attractive as in other fields. Other forms of investment—stock, bonds, etc.—are paying off better, and are much safer. Also our income tax structure crimps equity investment by individuals.

Myron Ehrenberg



KAPP . . . equity appeal

(Continued on page 20)



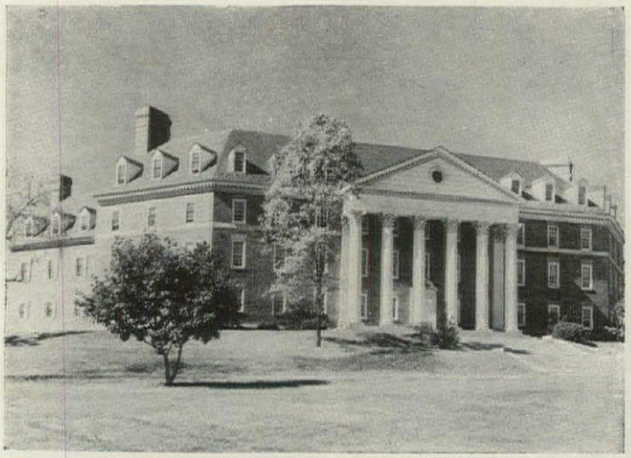
HERE'S another big job where Gold Bond Solid Partitions, of fireproof gypsum plaster and metal lath, will save about 4 inches per wall over old style walls. This system, employed throughout the Amsterdam Housing project in New York, will actually provide far more living space. Why not look into the Gold Bond Solid Partition system for your next job? You'll find it fully described in Sweet's. Or, for a 15 minute demonstration by your local Gold Bond representative, just drop us a card. No obligation, of course!

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Dormitory No. 2, University of Maryland, the eleventh building on the campus floored with Moultile. Henry Hopkins, architect. Southeastern Floor Co., Hyattsville, Md., contractors

11th BUILDING FLOORED WITH *Moultile* AT U. OF MARYLAND

Architecturally beautiful interiors as well as exteriors distinguish the campus of the University of Maryland. Many years ago Moultile flooring was selected for its special combination of properties . . . the mellow beauty of its deep-toned colors, its crisp, distinct veining and its interesting design possibilities . . . plus Moultile's assurance of sturdy, time-defying durability. Since that first installation Moultile's performance record has justified Moultile's reputation, and has led to its use in one building after another . . . including the recently completed Dormitory No. 2, pictured above.

Wherever you recommend Moultile, you can count on the owner's enthusiastic approval. Inherently tough Moultile stands up to hard wear, resists indentation and breakage. It is low in original cost and may be kept attractively clean and bright with minimum maintenance . . . requires no costly periodic refinishing. If you are not already acquainted with Moultile, write today for free samples . . . and ask for a copy of our complete catalog. THOS. MOULDING FLOOR MFG. CO., 165 W. Wacker Drive, Dept. AF-7, Chicago 1, Ill.

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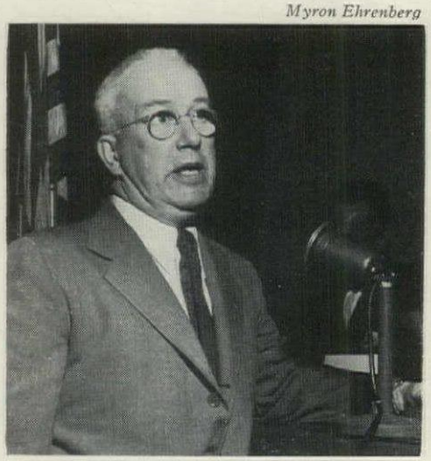
Why No Low-Cost House — HAROLD R. SLEEPER, *president, New York A.I.A.*

The public expect to get the latest in fixtures, kitchen equipment and gadgets. The builder wants these sales-easy items to show so he won't be stuck with any unsold houses. We won't have low-cost housing until we admit that low-cost equipment must be accepted in such houses.

Mass-Produced Future—BUCKMINSTER FULLER, *engineer*

We are beginning to see the first encouraging signs of industrialized mass-produced houses. Theoretically, 17 cu. ft. in a house can be enclosed with one pound of material involving one minute of time from source to final assembly. This is equal to four man-days per ton. Thus a 5-ton house could be built in 20 man-days. But this figure does not take into consideration building codes, labor unions, materials shortages and the other realities of housing.

Myron Ehrenberg



FULLER . . . 17 cu. ft. per minute

—ELY JACQUES KAHN, *architect*

The big problem of the prefabricated home, apart from its planning, flexibility and bank acceptance, is the hidden cost element. The owner must realize that foundations, sewer connections, water and electric lines, roads, paths, planting, must be paid for and buying the initial package is only one of his considerations. He must be protected against unknown factors and feel that his investment is reasonably secure when the time comes that he may want to dispose of it . . . The buyer must understand more clearly the virtues of the modern house and realize that he is not asked to buy something different or exotic but actually a simpler and more efficient frame in which he can develop his home. The lending institutions must also be brought to understand the logic of such planning and that proper arrangements of

(Continued on page 22)

Syracuse Parish Enjoys Modern Steam Heat



CHURCH OF THE MOST HOLY ROSARY, Syracuse, N. Y., N. H. LaVaute, Architect. M. B. Moyer, Consulting Engineer. Modernized 1946 with Webster Moderator System of Steam Heating. Joseph Burke, Heating Contractor. Hillebrand & Owen, Electrical Contractor.

In 1946, the Church of the Most Holy Rosary, Syracuse, N. Y., decided to do something about the uneven heat distribution in the three parish buildings.

Here was a church, a school and a convent—modern in appearance, but years out-of-date in steam heating distribution and control.

The two-pipe vacuum steam heating systems used in the church and school—the last word when first installed—were wasteful when compared with present-day standards.

The heating modernization program proposed by the Very Rev. H. C. McDowell and the Building Committee called for conversion to a "Controlled-by-the-Weather" Webster Moderator System. The smaller convent building was equipped with a separate Webster Type "R" Vapor System.

Results: completely satisfying. Church, school and convent are heated evenly and rapidly. The reduction in wasteful overheating has helped to cut fuel costs.

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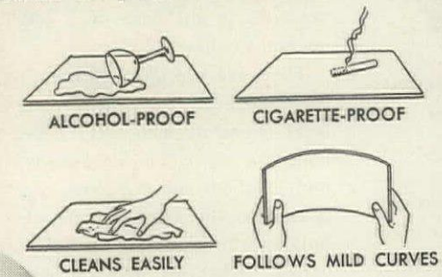
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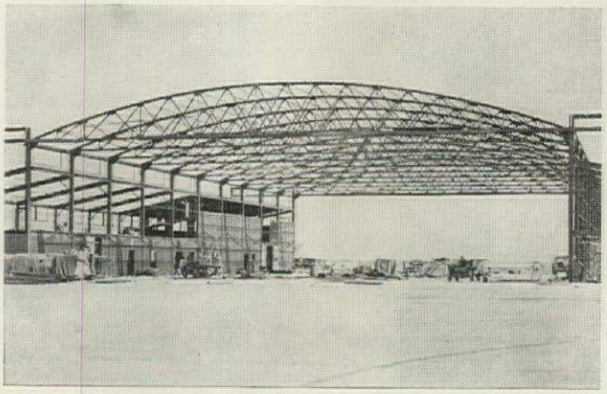
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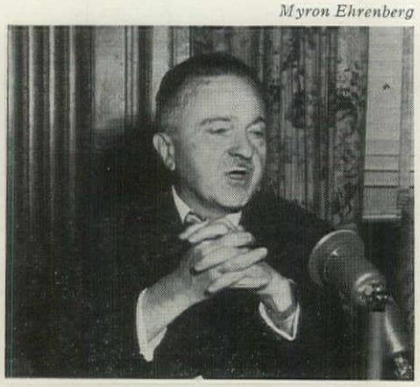
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Myron Ehrenberg



KAHN . . . count the hidden cost

modern structures will be as attractive as the aggregation of any other units of more conservative types.

The Distribution Argument—*Professor* FRANCIS WINGATE, *College of Business Administration, Syracuse University*

A study made a few years ago showed that distribution costs were 53 per cent of the delivered price of lumber. This figure includes transportation costs. This is probably not much different from other materials. Thus, we might approximate the expense of distribution as about 50 per cent of the delivered cost of building materials. On this basis, total distribution expenses in the case of a $10,000 house amount to about $2,750.

There are over 200,000 building contractors. About 87 per cent of them are small local operators who erect fewer than five houses a year. The distributive practices and methods of suppliers are perforce geared to the requirements of the small builder who is not able to talk in terms of carload deliveries, and who often requires financial assistance.

Some questions on distribution may properly be raised. Is this system of distribution properly serving the small builder. Can changes be made which will result in reducing distribution costs? Is our system of distribution hampering the mass builder?

Lack of standardization of building materials has undoubtedly added to distribution costs all along the line. The modular system offers hope of improvement in this direction . . . Our building codes inhibit the free play of competitive forces which tend to make distribution more efficient in any field. . . .

During the past few years manufacturers and suppliers of building materials have been operating in the very pleasant climate of a "seller's market." Every indication is that we have turned the corner in this regard as far as many items are concerned. I would hazard the guess that we have here a normal corrective factor which will result in greater distributive efficiency.

(Continued on page 26)

GOOD NEWS FOR BUILDING SPECIALISTS



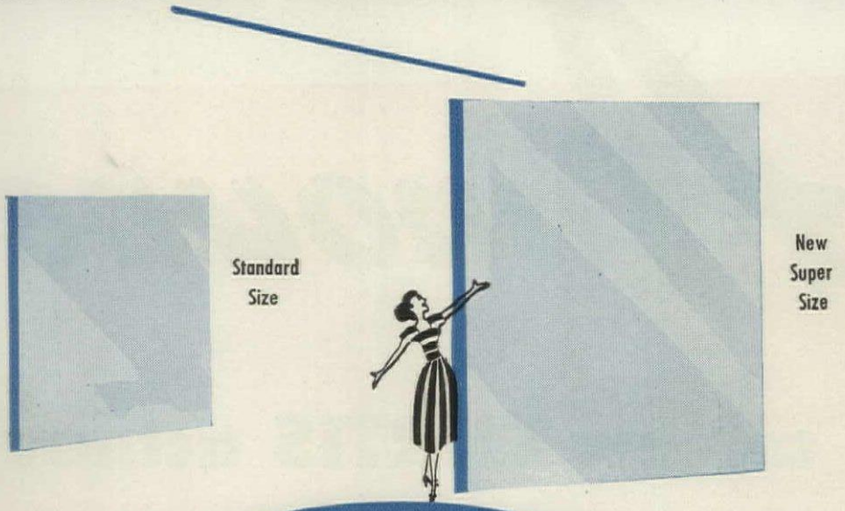
Watch for the Sensational New EAGLE Product to be Announced Next Month

Soon it can be told! Welcome news about a new EAGLE product that has been years in the making and thoroughly proven in building installations. You'll read all about it on these pages next month.

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Now, the LARGEST PLASTIC SHEETS ever made!



super-size *Plexiglas* sheets 100" x 120"

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Thickness ranges from .250" to .500"...

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Originally developed for the U. S. Army Air Force, super-size PLEXIGLAS sheets now are widening the scope of design in many fields—permitting large-dimension applications formerly restricted to other materials.

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Light, durable, shatter-resistant, optically clear and easily worked, PLEXIGLAS is well suited to a host of plastics products and components. And in its new large dimensions, this rugged acrylic resin is now practical for such unusual applications as curved transparent tops for automobiles, large one-piece show-cases, huge "spectaculars" and other advertising signs, as well as architectural uses—facades, wall facings, partitions, curved glazing.

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At present, super-size PLEXIGLAS sheets are available in limited quantities. But with expanded production on the way, you'll soon be able to obtain all you want. For full information, write us today.

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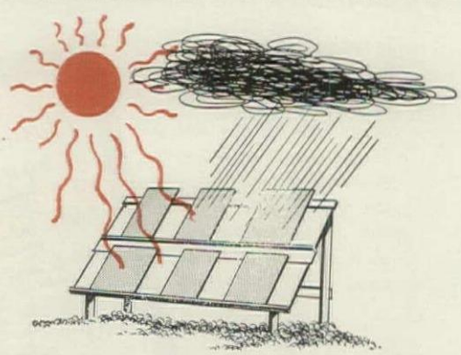
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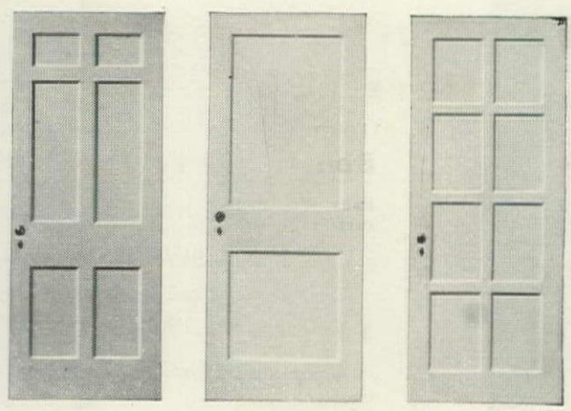
Again Curtis is *first* with a major contribution in the woodwork field! Again Curtis offers a product providing plus values in beauty and durability—at an economical price. It's Prespine—a Curtis-created wood product combining many exclusive advantages when used in the production of Curtis doors, kitchen units and other Curtis Woodwork.



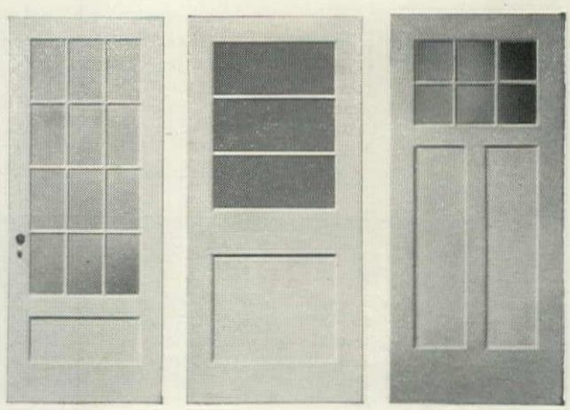
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No wood product has received more grueling tests than Prespine. It has been boiled and frozen—subjected to heavy impact—exposed to the weather for months—kept under conditions of high heat and humidity. In every test, Prespine shows that it has the superior quality and durability which Curtis standards require for the production of fine woodwork.

Study the features of Prespine—get full information on this remarkable new wood product. Then you'll know why Prespine is so rapidly making a place for itself in the woodwork world!



These illustrations show current use of Prespine Panels in Curtis interior and exterior doors. Prespine is an inherent part of these doors—just as it will be an inherent part of other Curtis Woodwork products.





What Curtis Prespine offers YOU today...



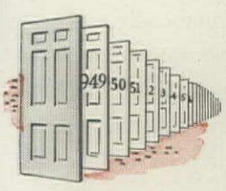
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Prespine has a hard, satin-smooth surface. When unfinished, it resembles, in color, the natural wood from which it is made.



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The Prespine surface provides an excellent bond for paint. Prespine, too, takes any color of stain beautifully. With Prespine, there is no grain-raising—and nothing to cause discoloration of finishes. Edges provide a better surface to finish. Because Prespine is consistent in color and finishing qualities, it assures a pleasing job.



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In the Curtis laboratory, Prespine has been boiled for hours—it has been soaked for weeks—it has been subjected to freezing and thawing—and every test has proved its amazing durability. Prespine has the strength to take heavy impact blows—won't mar or scratch readily—won't splinter or chip at the edges. It has superior bending strength, resists warping, shrinking and swelling.

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Distribution (continued)

—A. J. Brock, *manager of sales service, General Electric Co.*

In our picture no distributor or dealer has a vested right to sell General Electric products. They must justify their being in this broad complicated problem of distribution. Unless a distributor can justify his existence, competition will eliminate him.

One of the responsibilities of our distributors is *service*. The great name of General Electric has been built up over the past 50 to 60 years because our products stood up and when something went wrong the consumer could get service. A refrigerator, for example, is a highly-finished, well-engineered mechanical piece of equipment, with many parts more finely machined than an expensive watch. If not properly handled, it would require lots of service. . . .

We, therefore, sell our products through regularly appointed distributor channels and the protection of the distributor is our basis of policy.

Distributors—who are our first level of distribution—sell to dealers or retailers. We feel, as do our distributors, that the small builder should buy from his local dealer, where service and delivery is readily available. We also feel and actively suggest that our distributors sell direct to the large operative builder. Many large builders are buying from our first level of distribution and at very attractive discounts —because they buy in large quantities—in carload lots in most cases.

—Emanuel Spiegel, *Scotch Plains, N. J., regional vice-president, National Association of Home Builders*

I would like to present the views of the small builder, let us say the man who builds under 50 houses per year . . .

We easily recognize the fact that the average builder is not in a position to purchase carload lots of material and must therefore make his purchases through local dealers or distributors . . . I do believe that certain materials such as gypsum products and roofing and siding materials could be shipped directly from the manufacturer to the building site with a resultant saving in handling costs, rather than the method employed at present. For example, a builder requiring a trailer-load of gypsum lath does not receive the shipment directly from the manufacturer. The load is shipped first to the local dealer who is required to transfer this load to his own trucks before shipment to the building site. To me it appears that this is entirely unnecessary and that a considerable saving could be effected by the avoidance of this extra handling.

mullions and spandrels by

ALBERENE



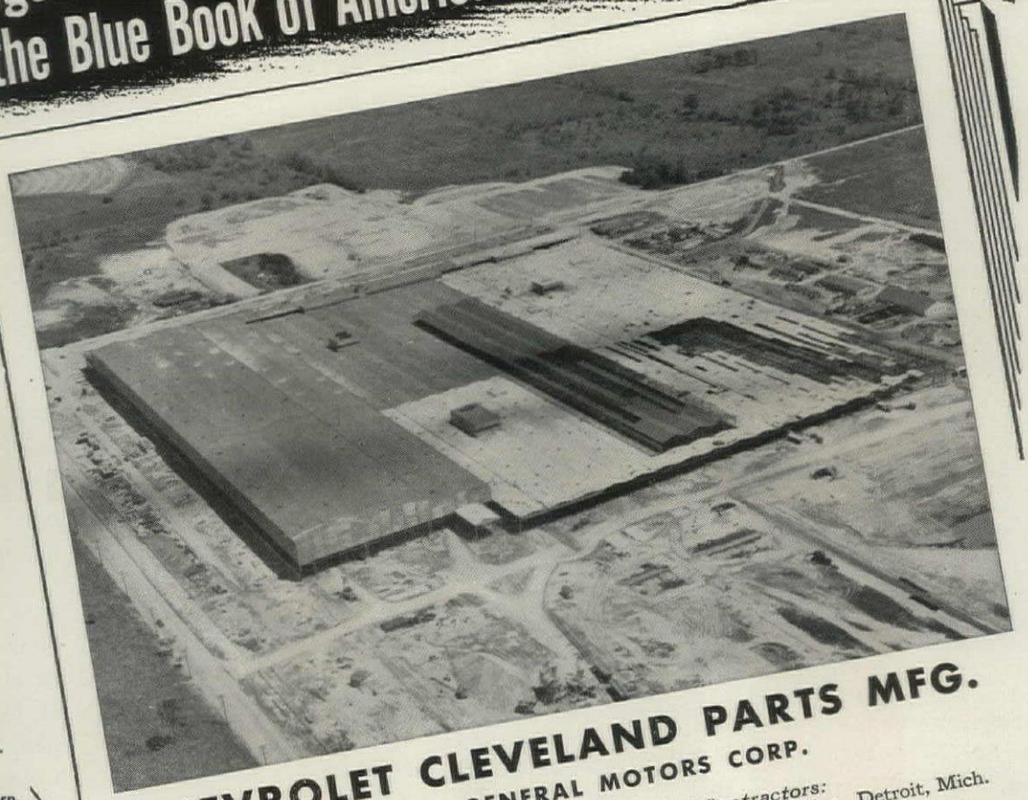
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AS ALWAYS, OTIS LEADS THE WAY . . .



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LETTERS

April Houses Slammed and Salaamed . . . Financing the Modern Home . . . Invective on the Niemeyer Case . . . Rigid Frames . . . Business Training for Architects . . . Retort to a Woman-Hater.

TEXAS SLANDER

Forum:

While we are pleased with the inclusion of photographs and the plan of our home (No. 2) of the 40 houses surveyed by your April issue, we are doubly disturbed by the opening line, "Built on a bare Texas site broken only by a few dry trees whose mild branches provide much character but little shade . . ." Not only is this somewhat slanderous to our whole section of Texas, but it is particularly untrue of our specific site which is a very fine one. To the west, . . . we have a magnificent outlook across a 20 mile valley filled with green farms with a forest clad horizon.

It may be the fact that since the pictures were taken in February, they have no foliage. I am quite sure that your oak trees in New York are fully budded and leaved by February, but in Texas, of course, foliage is not very luxuriant at that time of year . . . We do, however, have four magnificent oak trees which at the present time are fully clothed in luxurious foliage and give us plenty of shade. Furthermore, on our total lot which is 400 x 130, we have no less than 28 fair sized trees. . . .

WALTER H. HODGSON, Dean of Music
North Texas State College
Denton, Texas

FORUM hastens to withdraw its April slander of February in Texas.—ED.

ATOMIC TRADE

Forum:

I had no idea that "my" house was appearing in the April FORUM . . . Mr. Neutra's creation in the Hollywood "mountains" (even Hollywood, notorious for making mountains out of molehills, calls 'em *hills*) has not belonged to me for nearly a year now. 'Twas bought by a much more interesting couple than the Branches: a Dr. Stanley Frankel and his wife who are, respectively, a young nuclear physicist and the gal who does his higher math for him.

From all reports the Frankels are delighted with their glass cage, and we can understand their relatively youthful enthusiasm since we once felt the same way. As for us, we're living in a 30-year old farmhouse with the general proportions of a Pennsylvania barn and frankly (but don't tell Mr. Neutra) we like it a lot better.

Maybe it's just because we're the sort of people who should live in a barn. But we *are* people, and as such we're a lot more comfortable in this old shoe of a house than we ever were as victims of the so-called functional. We have kids. We have a collie and grandmother's hand-me-downs and a wife who never could and never will keep a house according to Neutra. (Incidentally, did you ever let a modern architect's *wife* have her say in your magazine?)

So . . . Mr. Neutra's house is in another magazine! That's exactly where it belongs, and that's the way we felt about it even after living in it for seven years. Here we can have our dirty diapers and our peace of mind. Who, I ask you, ever saw a diaper, even a clean one, illustrated in The FORUM? Even though there is certainly nothing more functional.

No, I'm not bitter nor even regretful. I'd just like to tell your readers why two Smart Young Things moved to Pennsylvania Dutch from Neutra Modern, and why our house of tomorrow will have to wait until tomorrow when our kids are grown and gone. How about it?

RUSSELL BRANCH
Santa Cruz, Calif.

1) For enthusiastic comment from architects' wives, not to mention the distaff side of non-professional families, see almost any residential job published in FORUM. 2) For diapers (clean, it is true) see FORUM, Apr. '42, p. 220.—ED.

MODERN PREFERRED

Forum:

In our work as housing consultants we have been recently impressed with the reluctance on the part of many financial institutions, as well as the Federal Housing Administration, to accept the non-traditional designs which are so capably shown in your magazine from month to month.

We had a most interesting experience recently, suggesting that the public is inclined to be way ahead of lending institutions in acceptance of modern design.

A group of 133 families recently joined together to form a non-profit cooperative housing venture. Their idea is to build, in a community acceptable to the group, simple houses commensurate with their incomes, in a suburban area of New York City. The families have an average income of $7,550 the minimum being $6,000. They have $3,000 or more equity in cash per family to apply to the cost of a house. In a carefully developed questionnaire received this week, the following interesting facts were revealed:

1. One-story, free-standing, single family dwellings are preferred by 102 out of 133 families. Of this group 51 classify the two-story house as completely unacceptable.

2. Of the 133 families 96 want what they call "modern design." Twenty-four refused to accept anything else under any circumstances while the remaining 72 said that, if absolutely forced to by financial backers, they would accept traditional architecture in order to obtain a house. The committee I interviewed representing the group, referred to the style of house desired by the majority as being "the kind you see in The Architectural FORUM."

From the questionnaires themselves, and from discussion with representatives, the group does not seem to have special qualifications which would lead them toward modern design. They are a mixed crowd of families headed by clothing manufacturers, accountants, engineers, dentists, lawyers, teachers, and workers in miscellaneous types of business in New York City. They are, in the main, men and women of approximately 40 years of age, with young children, and a substantial proportion are World War II veterans.

An unhappy thought at the moment is that it is very unlikely that we will be able to satisfy their architectural tastes. Even if we are fortunate enough to find an enlightened New York institution willing to finance, we would anticipate considerable trouble from local suburban reaction.

Perhaps The Architectural FORUM could undertake an educational campaign directed personally to the officers of loaning institutions in the hope that younger families of this type may achieve their natural up-to-date desire for up-to-date living.

FREDERICK H. ALLEN
New York, N. Y.

APRIL YES AND NO

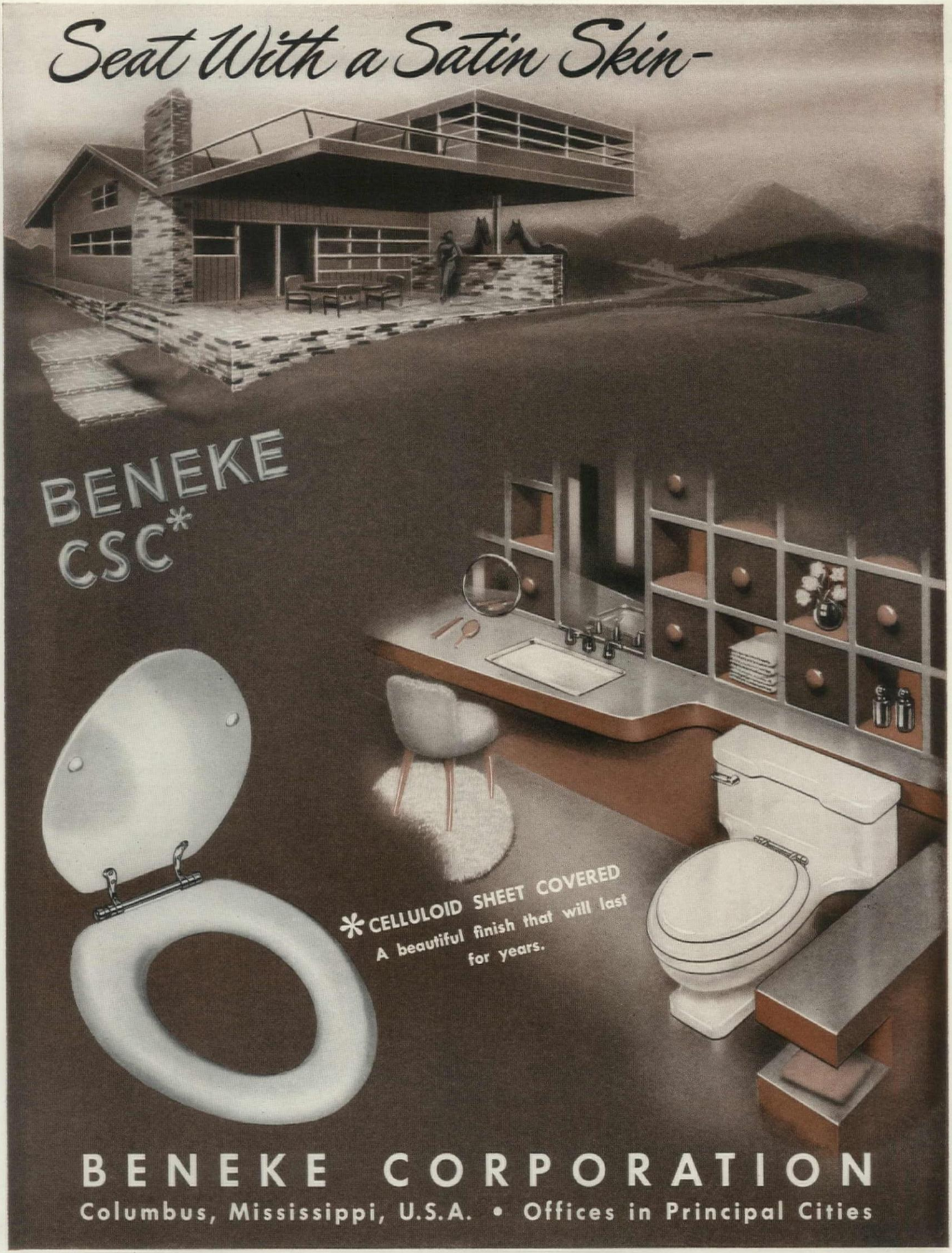
Forum:

It is small wonder that the vast home building majority of the American public chooses styled architecture for its living. Your April issue has shown us all that great areas of glass, clever and interesting uses of materials and inventive details do not make the contemporary house. So many of your chosen 40 flagrantly violate basic principles of planning.

Even in California it is difficult to believe that Robert Jones' design with an outside

(Continued on page 32)

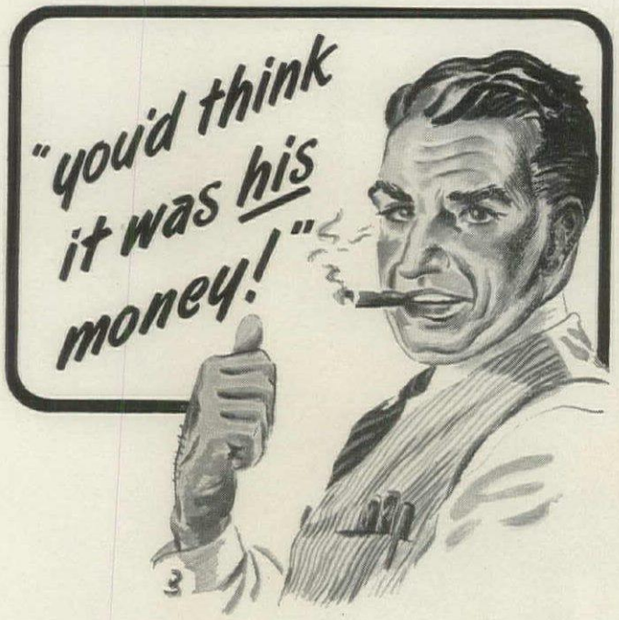
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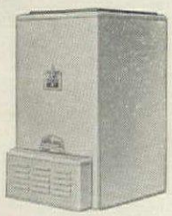
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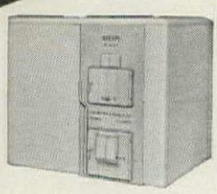
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entry and the end bedroom would meet a $21,000 home building budget.

Mr. Hall in Connecticut has made his living room the passageway to every room in the house. It is interesting to note that he is not alone in this error. Mr. Brown in Tucson, Ariz., has put his entry directly into the living area.

Mr. Kaeser in Wisconsin harked back to the International mechanical style in his wasted great effort to provide a cute corner window in virtually every room, with the result that his bathroom was lost in the core of the structure, necessitating mechanical ventilation. I am an architectural student enrolled at the University of Cincinnati. In all truthfulness I fully believe that if these designs were submitted as term problems, their grades would be an average "C." Rather poor wouldn't you think, for designs with which you evidently try to sell a product? We cannot all be Richard Neutras or Frank Lloyd Wrights but we can try to attain their frank simplicity.

The homebuilders of America will continue to prefer Colonial if they cannot have an honest and free expression without the cute cleverness of the average modernist. These men, I feel, will try to stay with the contemporary contribution long after some one among us has shown the world an even better solution to comfortable living.

ROGER M. VAN FRANK

Cincinnati, Ohio

Forum:

A wholloping congratulations on the April issue of FORUM, which is undoubtedly twirking the nose of many functionalists. It's what the student, the dessicated overworked office crew and the layman require to jostle them from their ennui. Not that the buildings can't be considered functional, that rather the much misused interpretation of the word functional is avoided. For a relentless removing of everything is very well in a school exercise, providing the student doesn't infer that therefore there is only one way to design.

The houses seem to have a poetry built in them, which after all is an achievement that is worth fighting for. Not necessarily picturesqueness, or gewgaws. But certainly a feeling that the architect should and can play with the forms to produce new forms, to create new relationships of light and shadow, of solid and perforated, and so on endlessly.

At least that is the way this one student at Harvard feels about architecture.

MERWIN E. ROBINSON

Cambridge, Mass.

(Continued on page 36)

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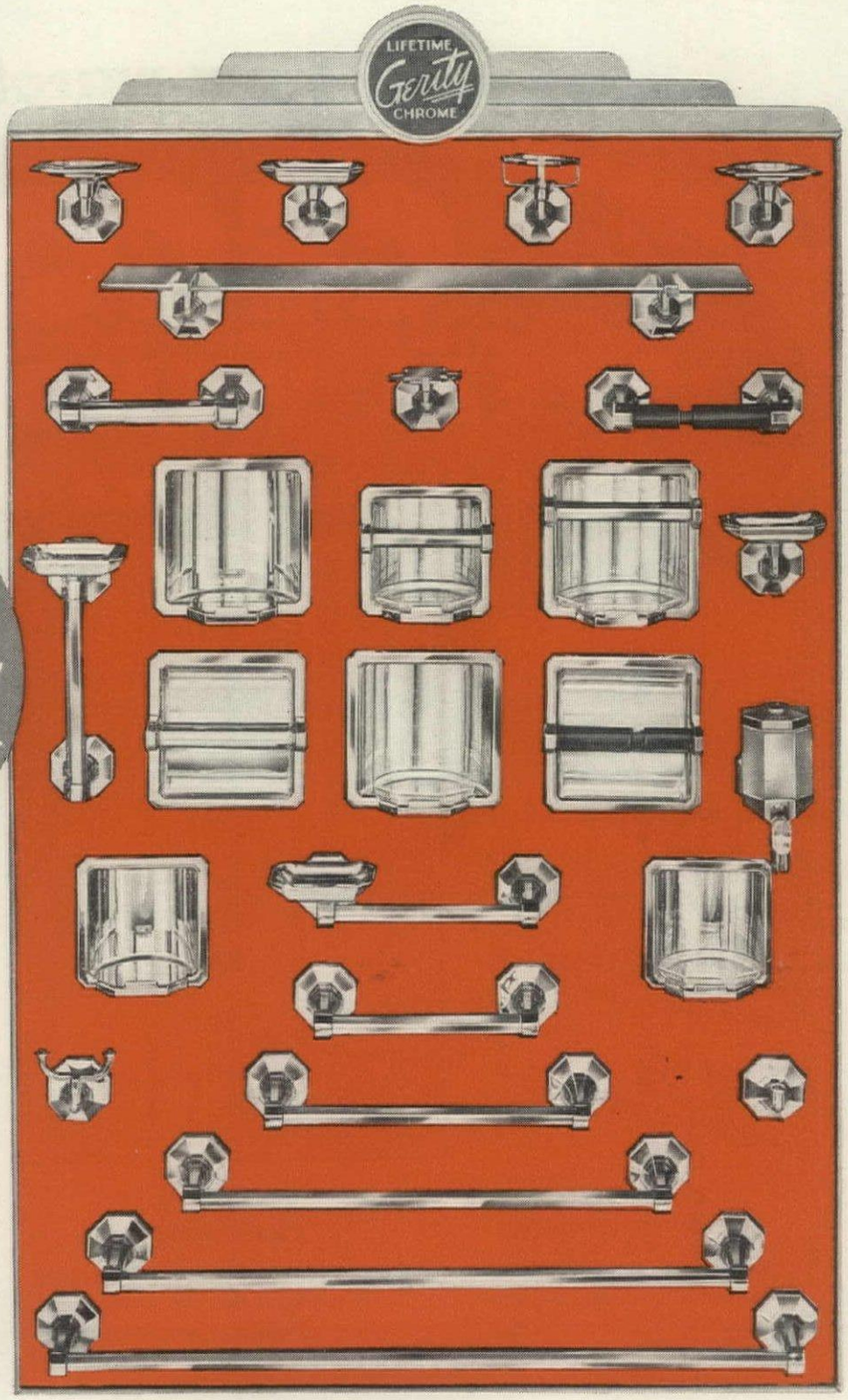
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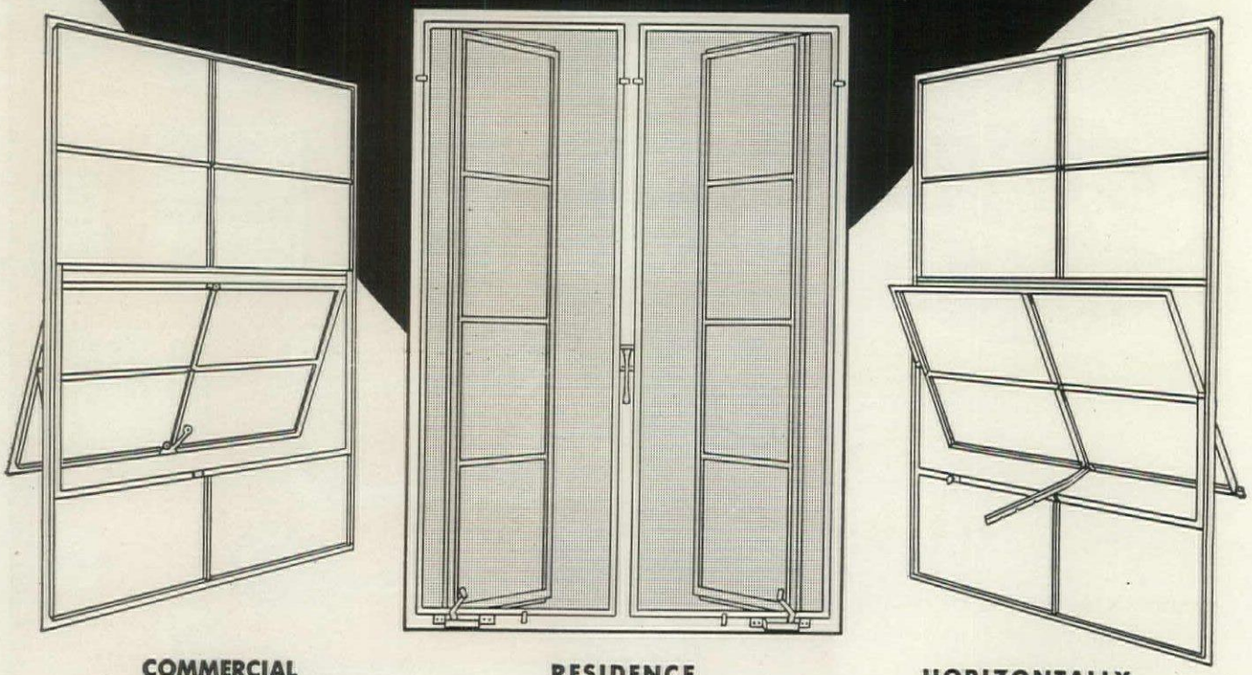
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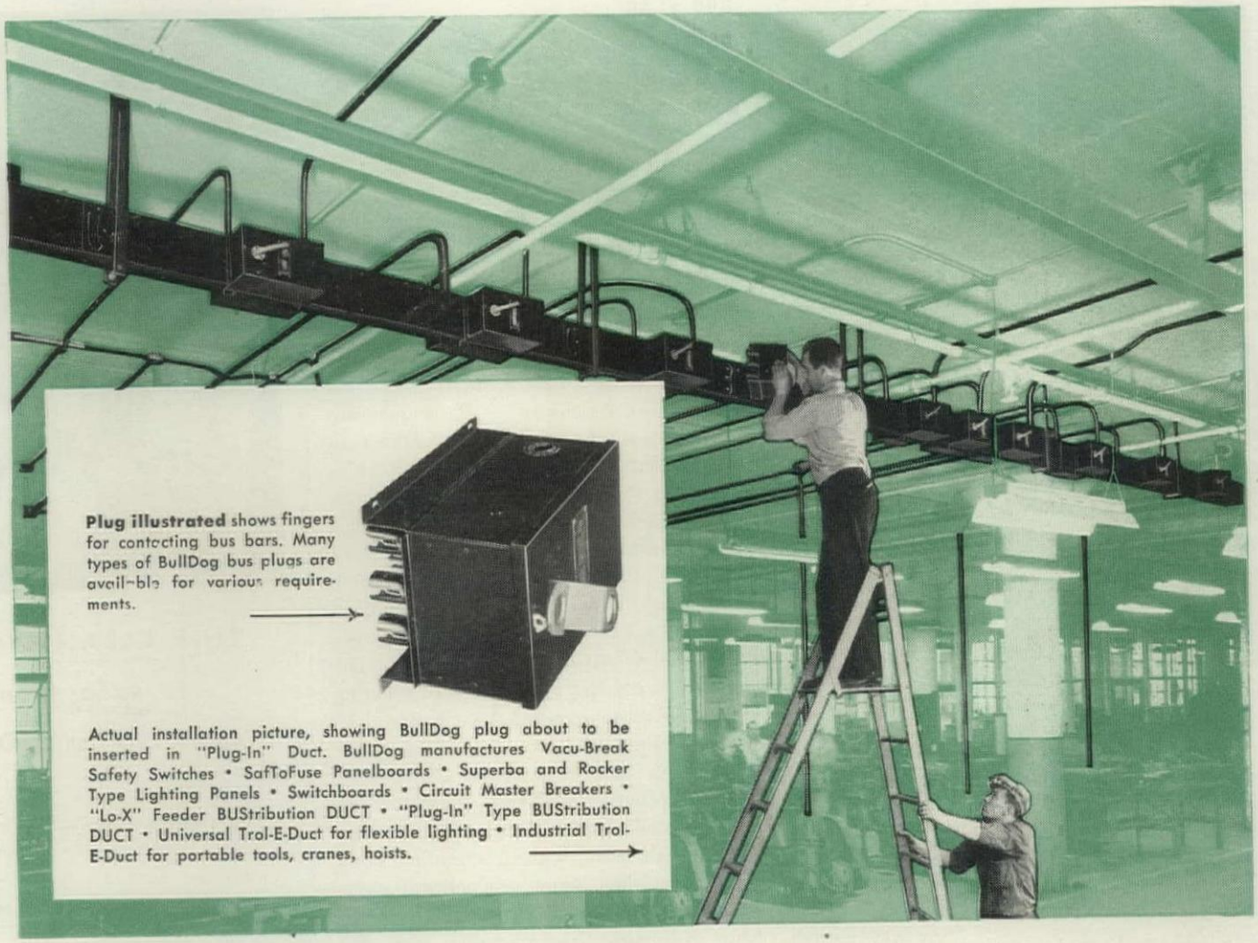
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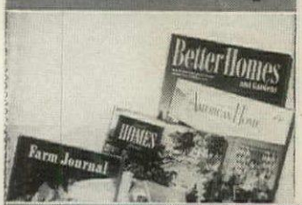
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RED FLAG

Forum:

I have just read the *Letters* column (FORUM, Mar. '48) and am thoroughly disgusted with the editorial comment which follows the letter from ten Brazilian architects decrying the barring of architect Niemeyer from entry into the U. S. You state that "No proof was offered that the respected Senor Niemeyer, coming to speak in a respected institution on a respected subject, was actually looking forward to a plotter's holiday." It appears to be your opinion that if a man is an architect, his political leanings must be above question.

Apparently, for the editors of FORUM to believe that a person is a Communist, it is necessary for him to carry a red flag with the hammer and sickle rampant and a half dozen bombs with lighted fuses, and to have a picture of Stalin tattooed on his forehead.

It is just your sort of do-nothing, or "aw, let's let him in—what's one more Communist" attitude that is giving our erstwhile ally the opportunity of planting more and more agents in this country.

Since you and I have subscribed to the democratic form of government by staying in this country, don't you think that we should abide by the decision of the State Department who, without question, know more about Mr. Niemeyer's political affiliations than we do? You stick to architecture, I'll stick to engineering, and we'll both let the State Department handle immigrants and foreign agents.

IRVING W. SMITH

Mount Rainier, Md.

Since Senor Niemeyer had already been welcomed to the U. S. for four and one half months in 1947 as Brazilian member of the Board of Design Consultants for the United Nations Headquarters Planning Office, FORUM feels that the State Department decree is a rather peculiar reversal of position and one which smacks of the Iron Curtain for which we criticize Russia. Furthermore, the protesting letter FORUM printed was not from "ten Brazilian architects" as Reader Smith states, but from ten top ranking American architects. Their protest as professionals has been echoed throughout the country by many who have no connection with architecture—including the *Baltimore Sun* (Apr. 23) which was sticking close to its job of editorializing.—ED.

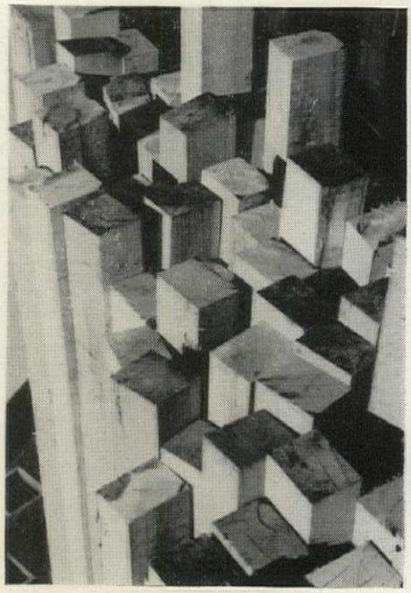
STRUCTURAL STUDY

Forum:

Congratulations on the very valuable article on the "rigid frame" (FORUM, Feb. '48) which in England we refer to as the "portal frame."

Such comprehensive and well illustrated articles on constructional systems are rare in any periodical and I am prompted to suggest that the same kind of thing could be done with other constructional systems

(Continued on page 40)



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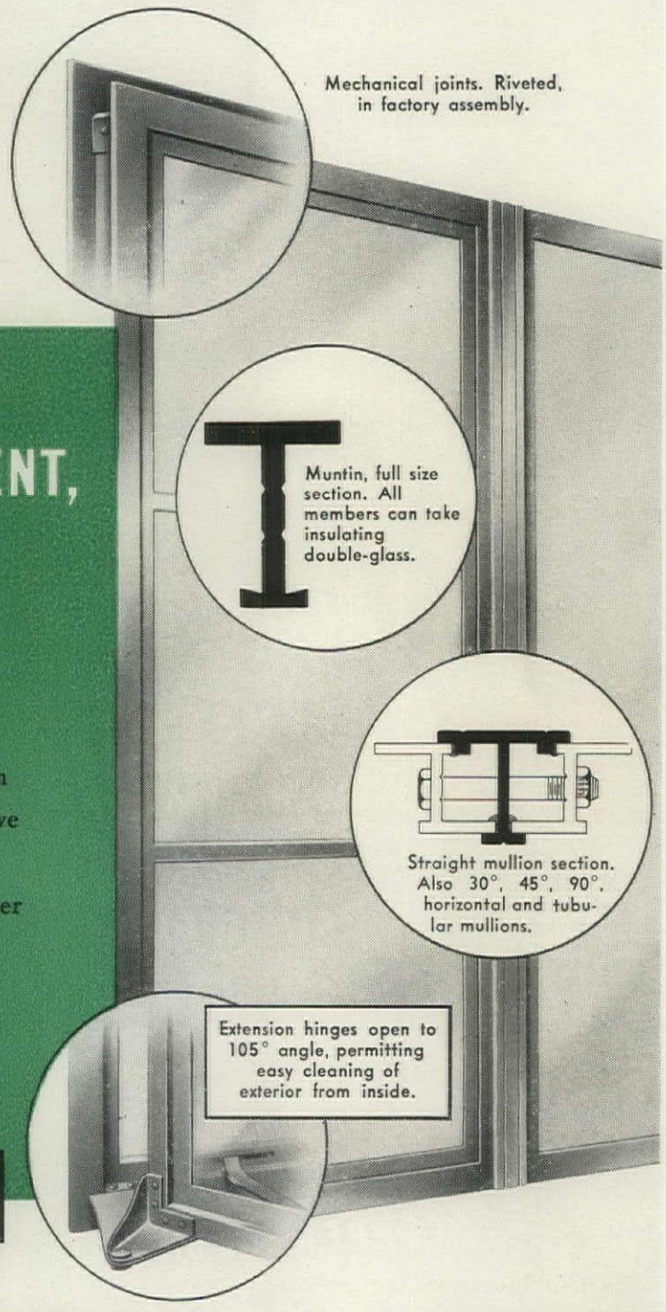
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—shell concrete, lattice truss and lattice arch, etc. In England we have developed "box frame" construction recently. This would probably be of interest to your American readers.

I am particularly interested in attempts to deal with structural systems on a comparative basis, as opposed to the detailed examination of one example, since I am a lecturer in architectural design at a school of architecture here.

Just as it is now accepted that the best way to teach children to read is to begin with sentences and subsequently break these down into their component parts; so, I believe, building construction should be taught to architects. They should first be able to view a structural system in the broadest possible way; its general principles, resulting form, dimensional limitations, functional and economic practicability—and, last but not least, its esthetic potentiality.

This your article does admirably. It is this information the architect, or the student, requires first if he is to avoid being unable "to see the wood for the trees." Details can very well follow; and some will never be of concern to the architect as such.

I make no distinction between the practicing architect and the student of architecture in this matter—the real architect being always a student.

J. E. Moore, A.R.I.B.A.
London, England

THE CASE AGAINST DESIGNERS

Forum:

It seems to me that the architects should develop more keenly their sales and contact ability, particularly in the large cities. I find simply from observation that a good deal of the work in the large cities is contracted for directly between the owner and some of the large building concerns, who in turn eventually select an architect and hand him a big job in consideration of getting some other work that is on his drafting boards.

This is a very weak and poor method of running the business end of the architectural profession. The architect should be smart enough to mix with the executives, bankers, and real estate men who know what is going on and to get their work direct, without being under any obligation to the big building concerns.

I think it behooves the architectural firms to develop somebody in their organization who can be trained along these lines. At the same time I think the boys in the Architectural Schools should be given a good course in the business end of architecture.

(Continued on page 44)

Preserve the Natural Beauty of Outside Wood With Cabot's CREOSOTE STAINS



Architect: Ernest Gunnar Peterson

The rich, penetrating colors of Cabot's Creosote Stains bring out and preserve all the natural beauty of wood siding, shingles or clapboards. A wide variety of attractive colors, from clear, brilliant hues to weathering browns and grays, allows you to choose exactly the right stain for any house on any site.

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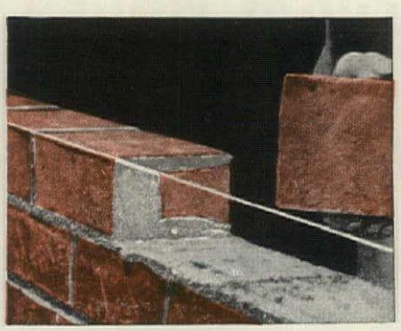
BETTER BRICKWORK is EASIER with BRIXMENT!

Full mortar joints are one of the best possible precautions against leaky brick walls. When cross joints and head joints are not *completely* filled with mortar, in both face brick and back-up work, water may penetrate to the inside of the wall, through openings in the joints.

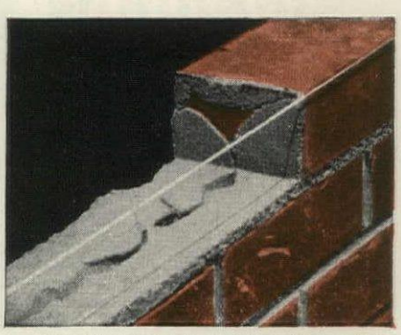
HEAD JOINTS



Slushing does not properly fill the voids in the head joints.

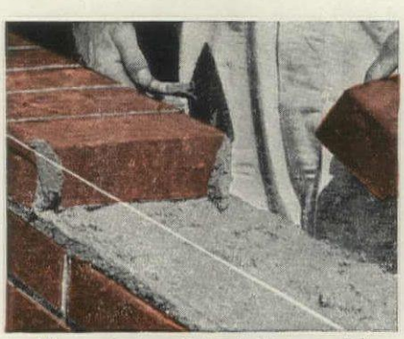


When mortar is spotted on only one corner of the brick, slushing seldom fills the voids.

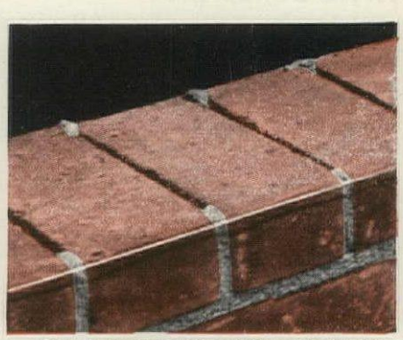


Even when mortar is spotted on both corners of the brick, slushing will not always fill the voids.

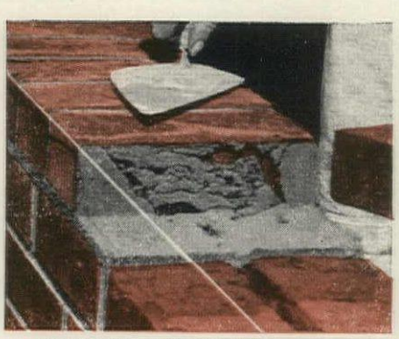
CROSS JOINTS



When mortar is spotted on both corners of the header brick,



there is nowhere near enough mortar in the joint.



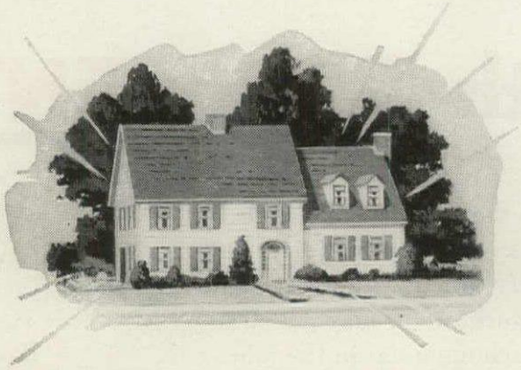
Slushing will not fill the voids.

Poor workmanship like that shown above is the result of (1) excessive speed in laying the brick or (2) the fact that the mortar is so poor and lean as to make better workmanship too difficult.

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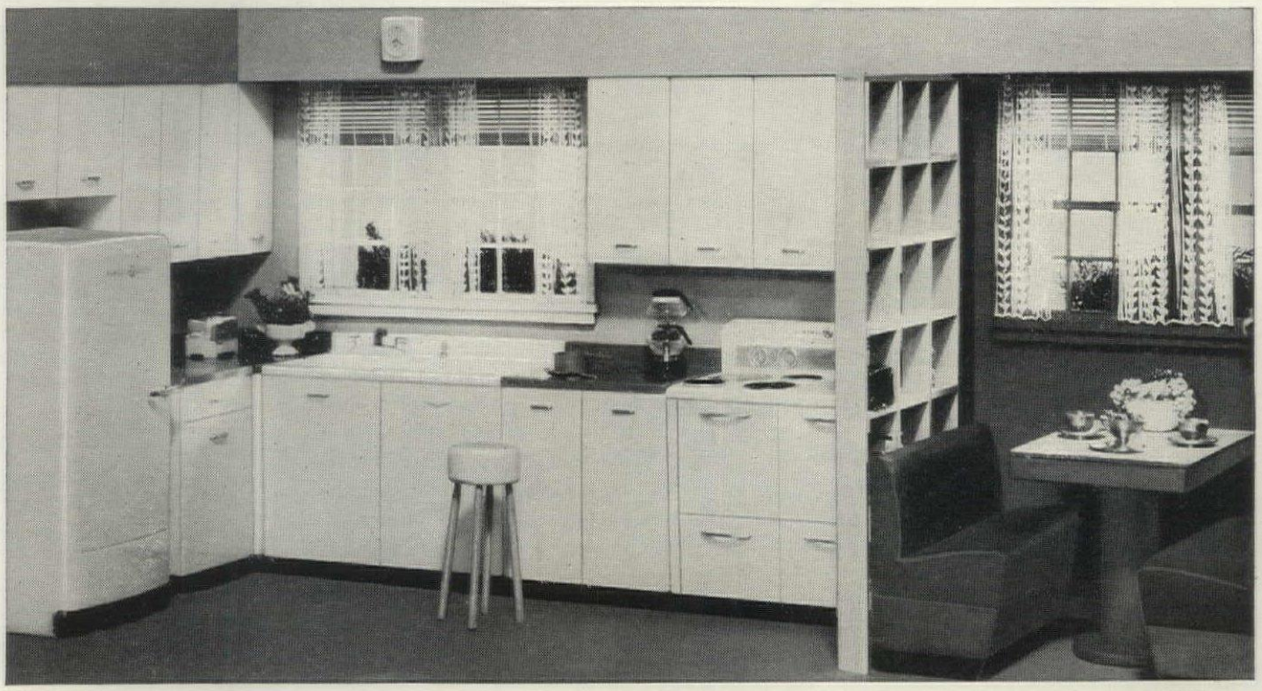
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LETTERS

They get plenty of design, but very little of the engineering foundation rquired for detailed construction work. They get a smattering of mechanical trades engineering, office practice, specification writing, building code information and the legal side of architecture. Therefore, a lot of boys who come out of college tend toward designers whereas they should be able to roll up their sleeves and get right into working drawings. They are most naive on the business end of architecture.

The old days of sitting back in the office with long hair, wearing tortoise-shell glasses and a smoking jacket, with a curved pipe in the mouth, waiting for business are over. The architect has to get on his toes, join clubs, get out and mix with executives, bankers, etc., in order to get business.

LEO F. CAPRONI, A.I.A.

New Haven, Conn.

A WOMAN SCORNED

Forum:

In The Architectural FORUM, April '48 issue, there appeared a very amusing letter signed by Frank Stanton. In this article the author very ably warns the younger architects not to accept small house jobs, because a house job invariably means a woman client, and a woman client is the cause of distress, despair and even premature death of architects.

I love humor, I love architecture and architects (have married one), but I prefer humor that is not expressed at someone else's expense. Being a woman, I do not like to see women slighted, and knowing a number of architects, I do not like to see their ability, moral courage and immunity to shock underestimated. Furthermore, I do not like to have them deprived of an experience without which an architect's life would be a total loss. Yes, I refer to the experience of dealing with women clients.

Supposing we concede a point and agree with Mr. Stanton that a woman, on the verge of commissioning an architect to design a house for her, is in an abnormal psychological state, like the proverbial hen Mr. Stanton mentioned (I've seen some men in that state, too), and that such a woman is somewhat difficult. Well, what a challenge. What an opportunity for the architect to demonstrate his ability in conceiving not only a plan for the house, but a plan for building something equally wonderful—harmonious human relationship. . . . I do not know of any other profession more qualified to do just that. Nor do I know of anything more worthwhile. . . .

(Continued on page 48)

When Manpowe Waits . . .

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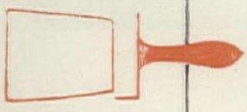
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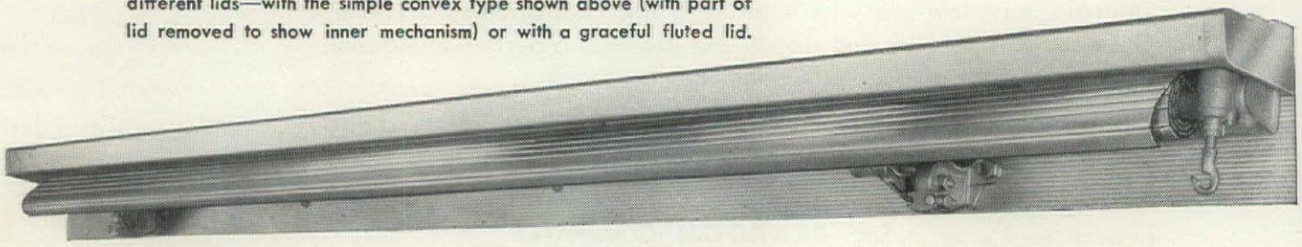
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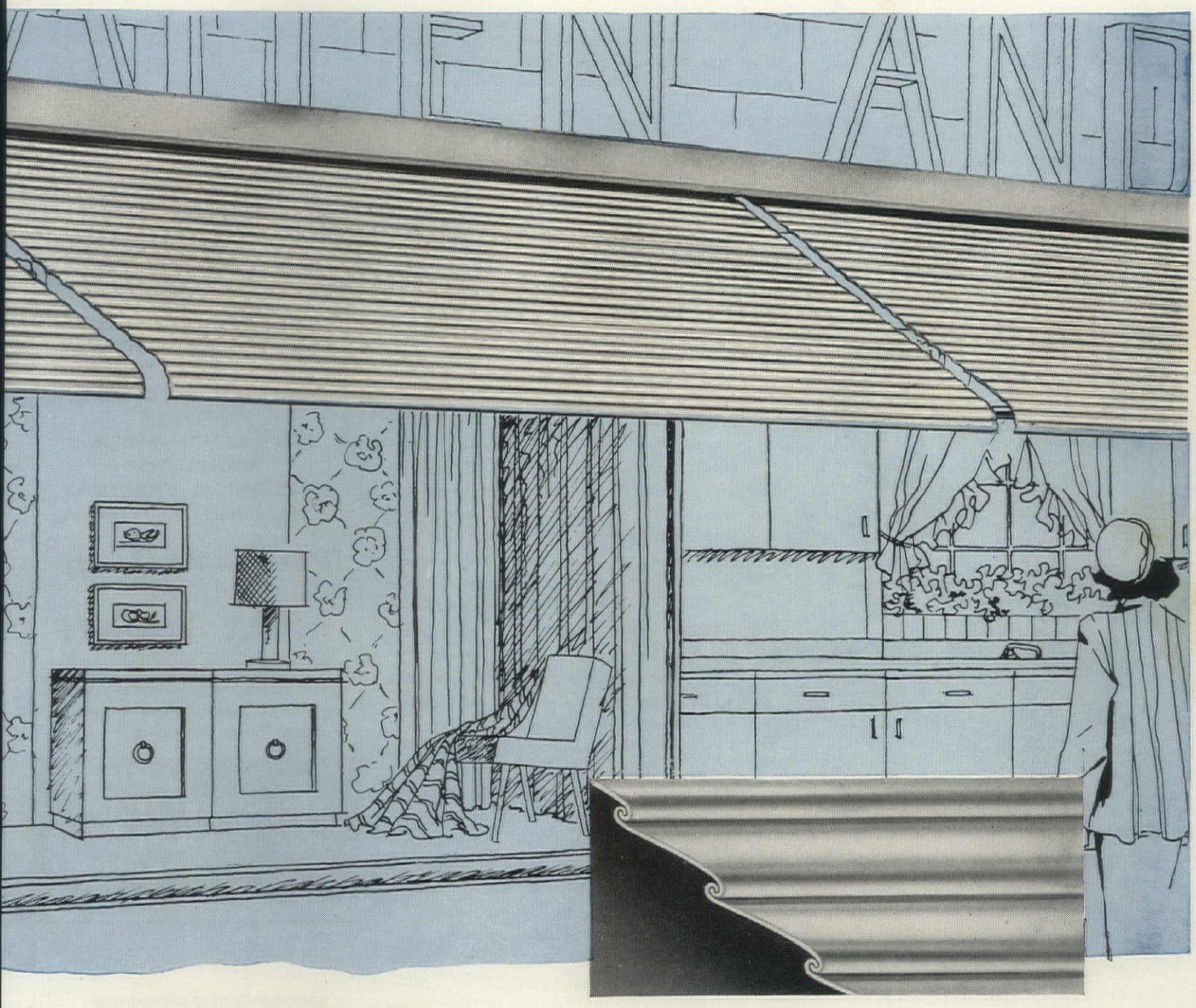


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LETTERS



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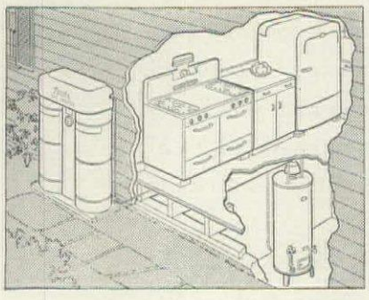
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Let us concede another point and agree that there may not be much in the way of remuneration in small house jobs. As a class, architects are not in the profession for the money alone. If it were so, they would have gone into another more profitable kind of business (they would have become undertakers, for instance). I believe that when God created an architect He must have said to him, "Go and put my world in order. Design. Build. Improve. You have at your disposal all the various materials. I give you ideas and inspiration and an irresistible urge buried deep within your heart to fulfill this commission. You may not be rich, but you will have a lot of fun and you will never starve." And so it has been ever since. The urge within is so strong in some cases, that the architects practically pay their clients in order to express themselves. . . .

No, the architects, young or old . . . are idealists and lovers of humanity. And what better way to show this than to design a house that would be the individual expression of the people living in it? A house that is more than a shelter or even a haven, but a reflection in miniature of the beautiful world around us. A house in which the souls and characters of the future generation are being shaped; out of which, like a flower, will blossom a nobler, wiser citizen, not only of these United States, but a citizen of the world, and a brother of all men. To do that is a rare privilege. And the architects, especially the younger architects, whom Mr. Stanton specifically addressed, are so privileged.

TANIA BISHOP

Spokane, Wash.

GERMAN MODERN

Forum:

Last March number of FORUM brought a voice of regret by well-known modern Berlin architect C. H. Wittig. He says "conservatism is ahead" in Germany.

I am German student of architecture and like modern architecture very much. I want to work and design with all energy in the steps of our great moderns. So I want to ask Mr. Wittig:

What must our moderns do to find successors and collaborators? There are students and young architects who want to go new ways. They need experience and leading of the "old" young architects. Give them a chance—and give the chance to your work! Young people will help to make new spirit popular!

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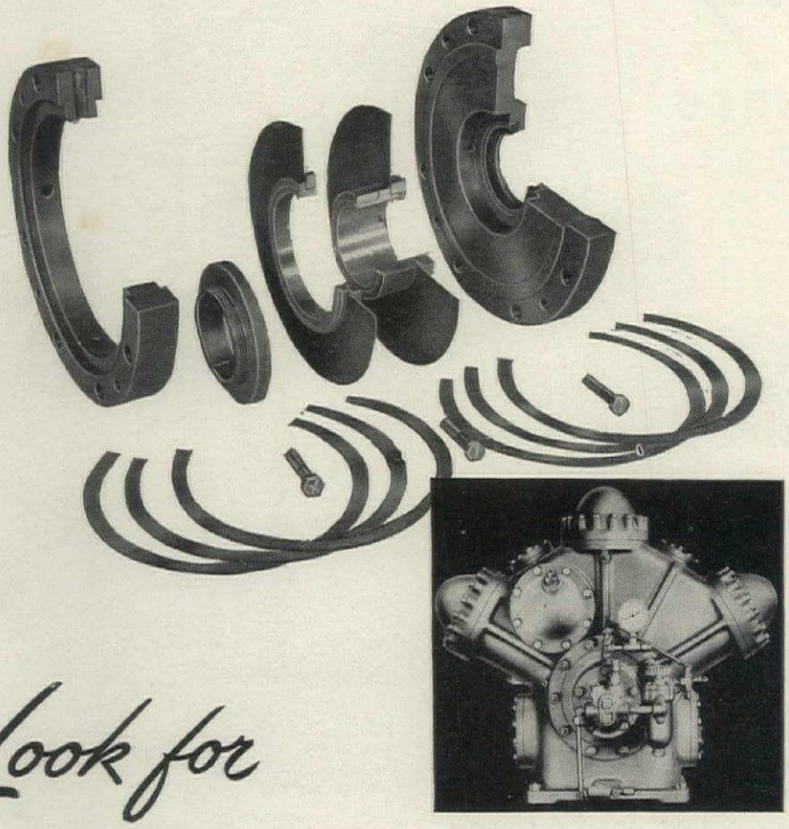
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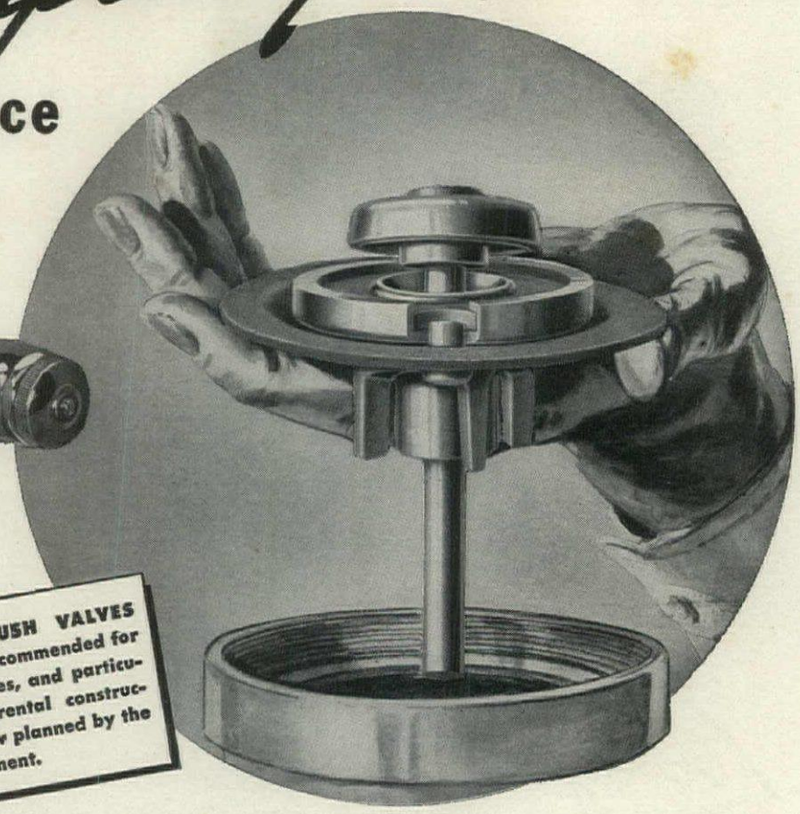
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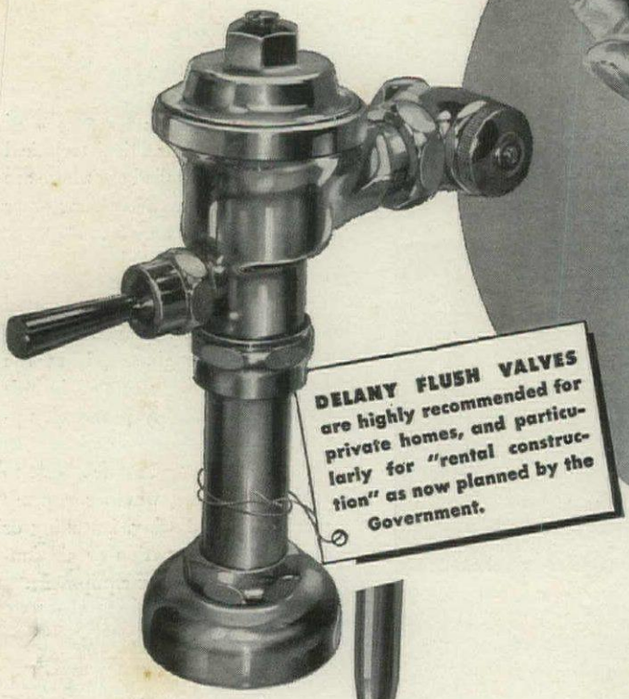
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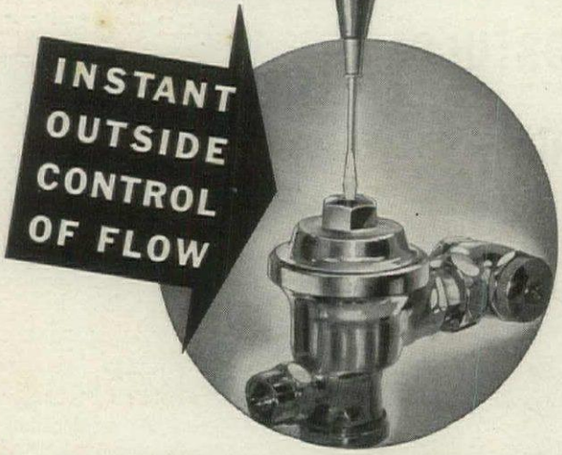
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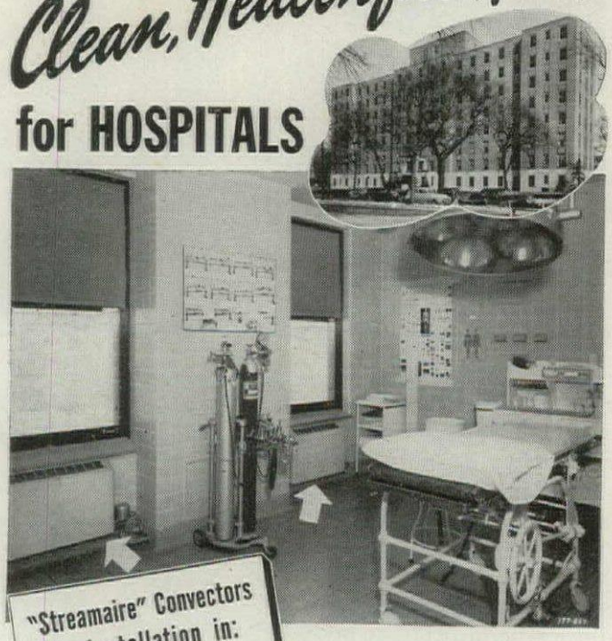
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ROBERT LAW WEED, who is currently designing a new campus for the University of Miami (p. 76) is a graduate of Carnegie Institute of Technology, in practice since 1922. He served in both World Wars and during II enjoyed a peripatetic career shuttling from Washington to India, China, Burma, South America and the Pacific Coast supervising design and construction of airports and transport facilities. He reopened the Miami office in 1945.



ROBERT M. LITTLE, who designed the liberal arts building (p. 77) of the new Miami University campus, studied architectural drafting while working in a Philadelphia tobacco factory in 1921. The following year he graduated from manufacturing to drafting board with a job in John T. Windrim's architectural office. He set up his own Miami practice in 1932 and during the war worked as coordinator for a West Coast prefabricating company.

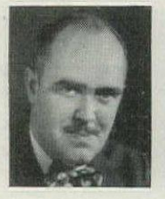




CHARLES F. SLOAN and **L. EARL McLAUGHLIN** are chief designers in the Sioux Falls office of Perkins & McWayne which turned out the Jackrabbit Bus Depot (p. 86). Sloan started as office boy in 1935, has since studied at the University of Minnesota. McLaughlin, a graduate of Washington University, came to the office in 1938.



FRANK M. SMITH, JR., THEODORE B. CARROLL and PERRY B. JOHANSON are partners in the Seattle firm which designed the small doctor's clinic (p. 90). Both Carroll and Johanson are graduates of the University of Washington. The firm was established in 1930 by the first two partners. Johanson joined in 1936.





THOMAS A. MADDEN and **WILLIAM J. CONNOR** are, respectively, the architectural and mechanical sides of their Harvey, Ill. partnership. Chicagoan Madden cut his design teeth on Midwest public buildings, New Jersey's Connor on New York projects. Both ended up at atomic Oak Ridge before joining forces. Their clinics (p. 92).



HARRY J. WILLIAMS and sons **E. STEWART** and **H. ROGER** are partners in the Palm Springs, Calif. office responsible for the Potter Clinic (p. 94). Until moving to California in 1942, the elder Williams maintained an office with Harry I. Schenck in Dayton, Ohio which has handled most of the large industrial and commercial work in Southern Ohio for the past 40 years.



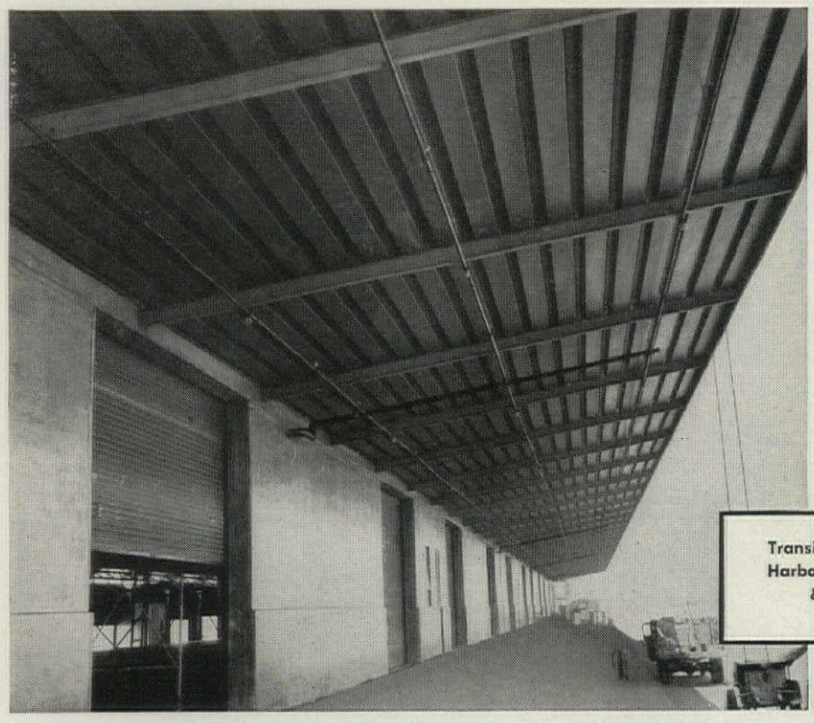


New Design Inc. (p. 104), the Manhattan shop which offers everything from pottery to architects was started by **DOROTHY Q. NOYES, ROBERT HAYS ROSENBERG** and Harriet Stern Rosenberg, designed by the first two. Rosenberg is Harvard-trained and a former editor of *Task.* Noyes is a graduate of Cambridge School of Architecture.



CARL LOUIS MASTON, architect for the Los Angeles apartment building (p. 112) was born in Illinois but migrated to California at the early age of nine. A 1937 B.A. from the University of Southern California was followed by work in various offices, a term with a Marine Dive Bombing Squadron and, since the war, his own Beverly Hills practice. He has managed a fairly even split between commercial and residential work throughout Southern California.

HOW TO MAKE DESIGN ECONOMIES PAY OFF



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Transit sheds 3, 4 and 5 on Pier A, Long Beach, Cal. Harbor Engineers, Long Beach, Designers. Peter Kiewit & Sons Co., Arcadia, California, Contractor.

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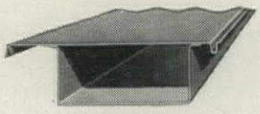
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Economies are the natural result of installation speed and simplicity. First, job time is greatly reduced. Second, special skills are not required to put in these precision panels . . . they lock together simply and firmly—ready for a final coat of paint. Fenestra Panels make ideal canopies for stores, piers, factory loading platforms, all similar structures.

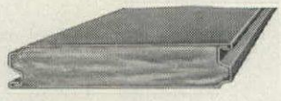
These versatile panels also make sturdy floors for every kind of building. Type D panels can be placed channel side up and flat surface down or vice versa. Or cover plates can be used to provide two flat surfaces. The panels are prime coated, ready for application of concrete, mastic and wood or linoleum, or other surface material of your choice.

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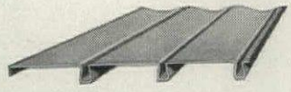
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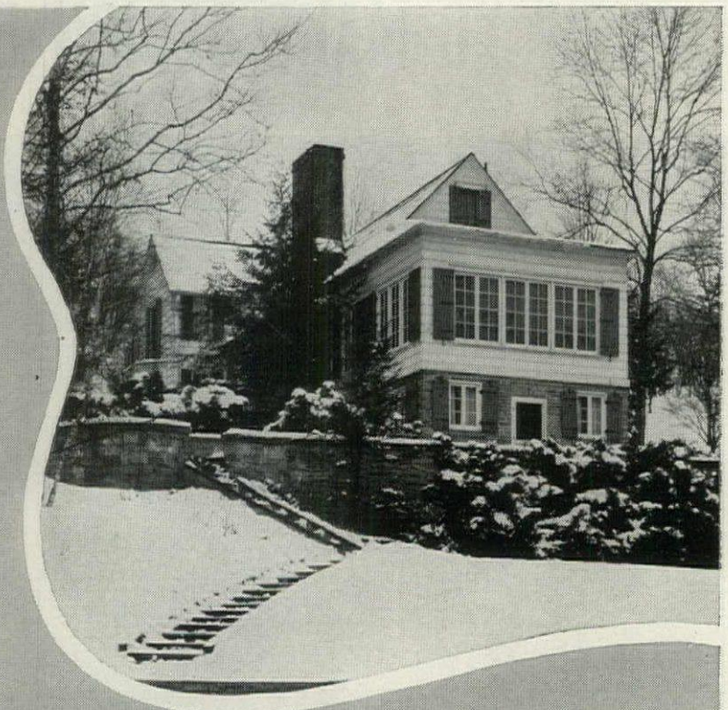
Company_____

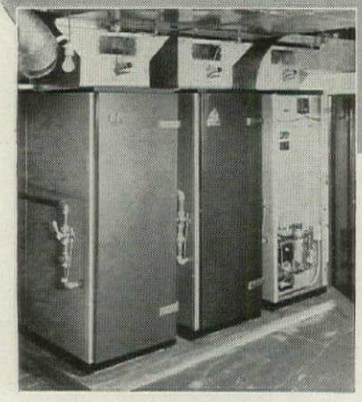
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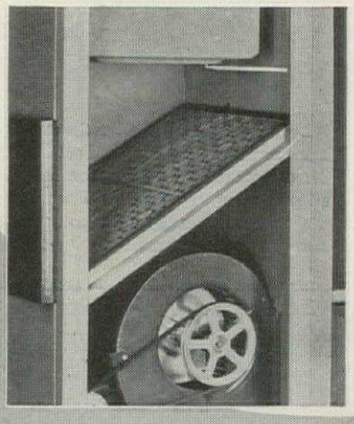
Unique installation of modern warm-air heating in the home of M. E. Whitman, Elyria, Ohio. This large house, with 7 rooms, 2 baths and a 2-story living room presented an unusual combination of hard-to-heat areas. Economical operation, plus zone control, with heat outlets for the entire basement, were provided by installation of three gas-fired "Luxaire" winter air-conditioners, capable of operating individually or collectively.





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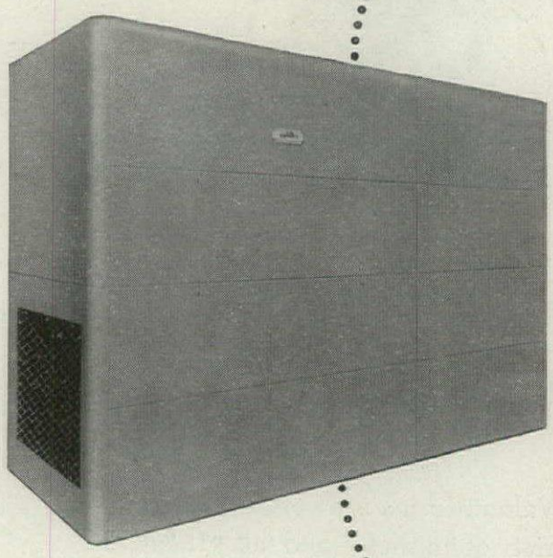
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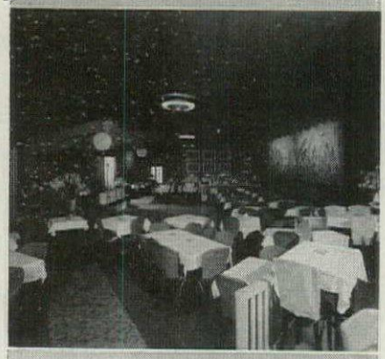
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MACY'S SUBURBAN DEPARTMENT STORE in White Plains, N. Y. This fourth and final step in Macy's plans for expansion around New York City (Parkchester, Jamaica and Flatbush stores are its predecessors) will be completed in June 1949. Its principal variation on the now-familiar white concrete suburban-store theme is the full two-story curved glass front which gives maximum visibility indoors and out. The air-conditioning system will include an electronic de-dusting device. Ketchum, Gina & Sharp worked out the interior design in collaboration with architects, Voorhees, Walker, Foley & Smith. Vermilya Brown are builders.

NEUTRA SEMINAR

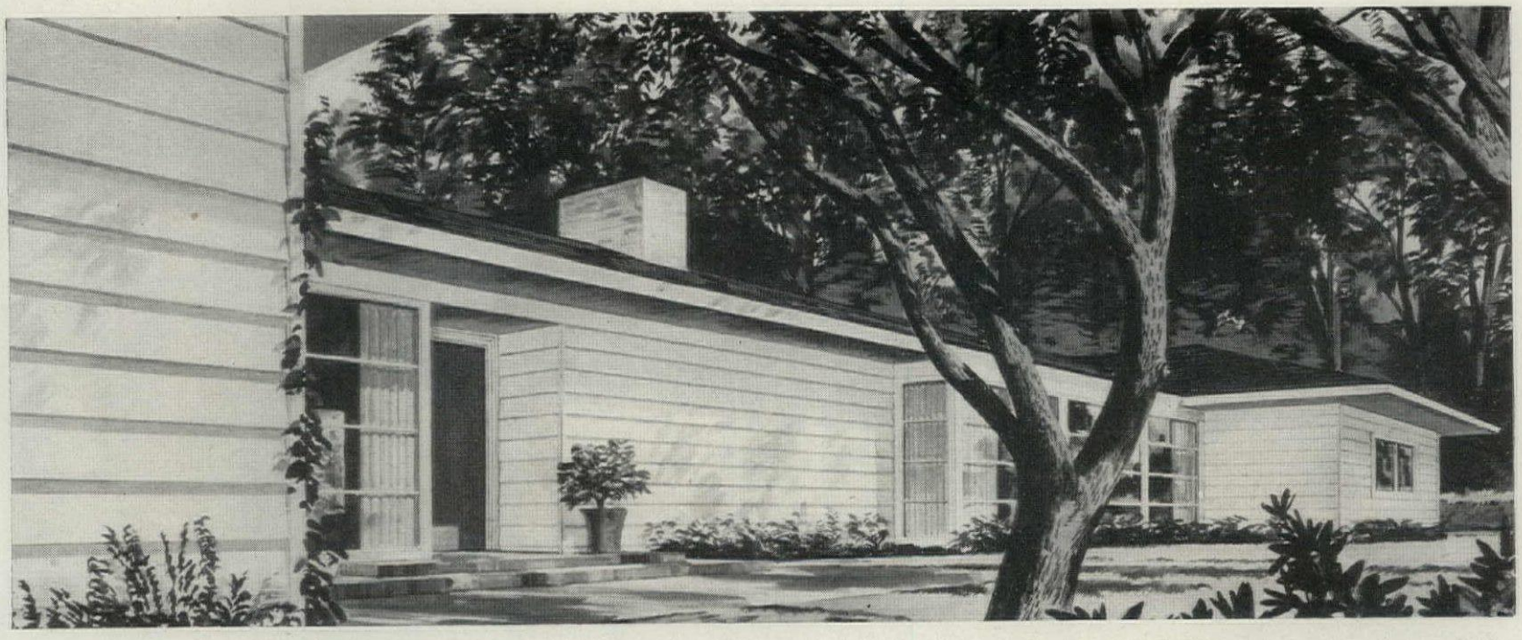
A THREE-DAY PROGRAM OF LECTURES by Richard Neutra, Montana State College, Bozeman, Mont., July 26-28. Sessions will consider the relationship between architecture and sociology, the problems of city and regional planning, school architecture, and the history and theory of modern design concepts.

EXHIBITS

THE NEW HOME-BUYERS EXHIBITION AT DIME SAVINGS BANK OF BROOKLYN, N. Y. In this show (following the successful three-and-a-half year run of its earlier Home show) the Dime Savings Bank feels it has worked out a successful formula for encouraging and helping would-be home-owners in its district. Seventy-five leading local builders, members of the Long Island Home Builders Institute, provided (on one large panel each) photographs and plans of their house developments together with costs and other vital statistics. This "building library" serves as the core of the exhibit. Around it, nine comprehensive displays of basic house needs are arranged. Experience in the earlier show indicated that a large number of small booths was tiring and confusing to the visitor. Broader reference to furnishings, materials, equipment and appliances is made possible through a large catalogue section containing brochures from almost 300 firms. The show is rounded out by financial displays (of course) and a "Velopticon" showing views of attractions and facilities on various parts of Long Island. Before the exhibit's first week was over, two house sales were directly traceable to its service.

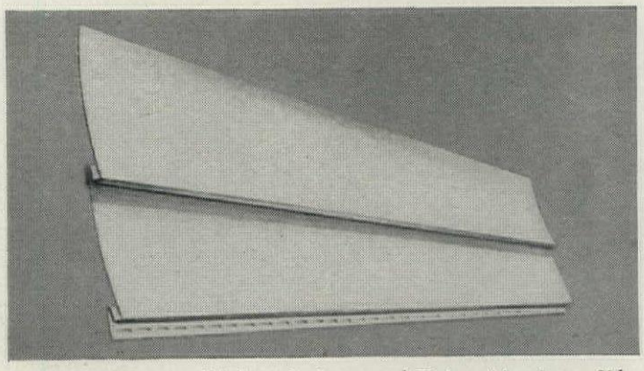
COMPETITIONS

THE A. F. DAVIS UNDERGRADUATE WELDING AWARD for the two best articles appearing in college or university publications between April, 1948 and April, 1949 on any phase of welding or its application to design and construction. Judgment will be based on originality of subject and clear and thorough presentation. Award for the best paper is $200 each to the author and publisher; for the second best, $150 each. Entrants should *(Continued on page 60)*

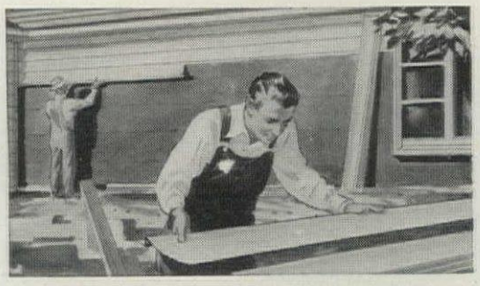


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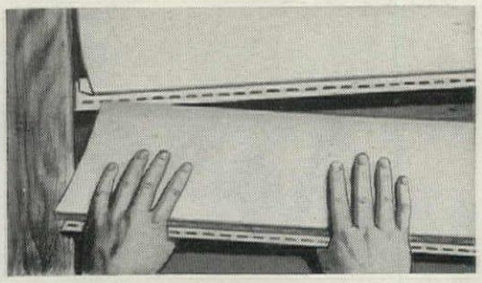
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Oak Floors RESPOND TO CHANGING STYLE TRENDS

With beauty, durability and long-time economy as obvious advantages, an important quality of oak flooring is lately becoming more and more appreciated—that is, adaptability to meet changing style trends.

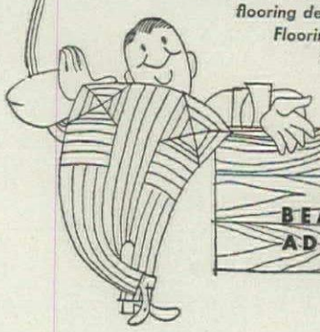
Actually oak floors welcome new ideas to make homes more attractive and more livable. Changes in furnishings, wallpaper, paint or rugs blend harmoniously into the basic beauty of natural oak grain and texture.

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ADAPTABILITY · ECONOMY

ANNOUNCEMENTS

send six copies of the publication to: The Chairman of the Educational Committee, American Welding Society, 33 W. 39 St., New York 18, N. Y. before April 10, 1949.

THE MERIT AWARD COMPETITION FOR "NEW LIGHT ON PLANNED LIGHTING." Fifteen prizes of $100 each are offered for the best ideas on lighting use. Application blanks are obtainable from the Merit Award Committee, 326 W. Madison St., Chicago 6, Ill. The contest is open to architects, electrical contractors and wholesalers, utility men and users of industrial and commercial lighting. Deadline is January 15, 1949.

AWARDS

THE 1948 AMERICAN IRON AND STEEL INSTITUTE MEDALS to J. L. Mauthe and Karl Fetters of the Youngstown Sheet & Tube Co.; and to the late J. H. Slater of Republic Steel Co.

THE JOHN WESLEY HYATT AWARD for outstanding achievement in the Plastics Industry to John Cochrane, Jr. of Formica Insulation Co.

THE $2,800 LEBRUN TRAVELING SCHOLARSHIP of the New York Chapter of the A.I.A. to Jouka Hakola for study in the field of public health building.

THE UNIVERSITY OF MICHIGAN BOOTH TRAVELING FELLOWSHIP to John Bickel, III, of Louisville, Ky.

APPOINTMENTS

ADAMS & WOODBRIDGE, New York City architects, as consultants for Columbia University's present and future building and maintenance plans. The firm will work on broad development lines, will not design individual buildings.

IRA BACH to fill the post of Director of Planning on the Chicago Land Clearance Commission.

ROBERT ALEXANDER and EDMUND MCKANNA as president and vice president of the Los Angeles Planning Commission.

JAMES O'MALLEY of Wilkes-Barre, Pa., new president of the National Savings & Loan League.

RICHARD MEAGHER, new partner and member of Brown, Wells & Meagher, architects and engineers, 118½ W. Campbell Ave., Roanoke, Va.

WALLACE YERKES, as member of Naess & Murphy, Chicago architectural firm.

EDWARD RUBIN, business manager for Gruen & Krummeck Asociates, California store designers.

ROBERT HILLS, Director of Client Service for Van Doren, Nowland & Schladermundt, New York and Philadelphia design firm.

MICHAEL CZAJA, visiting professor of design in Stanford University's summer session.

NEW OFFICES

ALEXANDER SPITZ A.I.A. and WARREN SPITZ A.I.A. architects and engineers, 410 S. Michigan Ave., Chicago 5, Ill.

I. WILLIAM RICCIUTI and M. WAYNE STOFFLE, architectural partnership, Queen and Crescent Bldg., New Orleans, La.

ALEXANDER KNOWLTON, architect, 139 E. 53 St., New York 22, N. Y.

(Continued on page 64)



make it a

One-Piece Pipe Line

with SILBRAZ* joints

Silbraz joints, made with Walseal* valves, fittings and flanges, actually make a "one-piece pipe line" of brass, copper, or copper-nickel I.P.S. pipe or tubing . . . leaky joints are completely eliminated, and maintenance costs are reduced to the minimum.

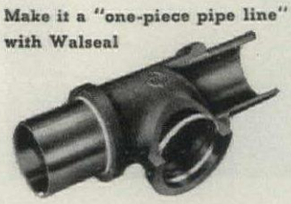
A Silbraz joint is *silver-brazed* — not soldered. This modern pipe joint will not creep or pull apart under any condition which the pipe itself can withstand . . . vibration or corrosion will not affect it. A Silbraz joint is designed to have a tensile strength equal to about three times standard weight brass pipe, and the pipe will fail before the joint will pull apart.

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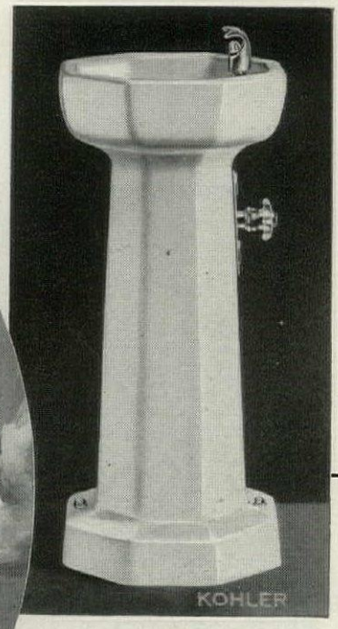
valves and fittings

60 EAST 42nd STREET NEW YORK 17, N. Y.

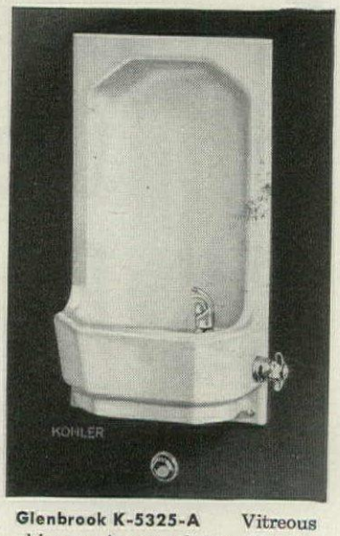
DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD



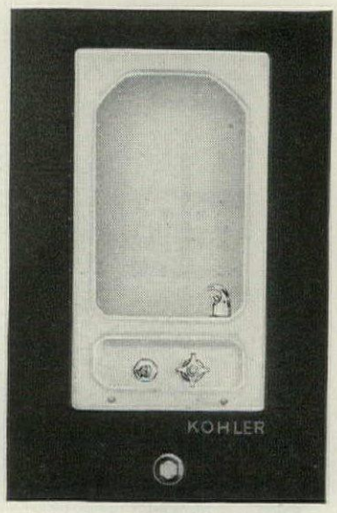
Daybrook K-5335-A Vitreous china, wall-hanging type. Size of bowl, 14 x 10″.



Carisbrook K-5300-A Vitreous china pedestal type. Height, 30″. Diameter of bowl, 13¼″.



Glenbrook K-5325-A Vitreous china semi-recessed type. Height, 26¼″, Width, 14¾″. Recess depth, 4½″. Projection from wall, 6¾″.



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assure sanitary protection and convenience

KOHLER quality in drinking fountains is apparent in a number of important features. Each fountain delivers water in a mound that has the angle and volume recognized as most effective for sanitation and comfort. A self-closing control valve is adjustable for continuous flow, and an automatic volume regulator keeps the drinking mound at the correct height and shape under varying pressures. A metal guard prevents contact of lips with jet opening.

Kohler fountains protect against back siphonage or water contamination —and all attempts at mischievous squirting are instantly defeated, for when water is checked at the jet opening it flows into the bowl below. The vitreous china surfaces are lustrous, durable and easy to keep clean. Kohler models include pedestal, recessed or semi-recessed, and wall-hanging types, some of which are shown. They all assure lasting serviceability and satisfaction. Write for information: Kohler Co., Dept. 23-B, Kohler, Wisconsin.

•

Vanbrook K-5331-A Vitreous china fully-recessed type. Height, 30″. Width, 16½″. Inside depth, 10″.

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS

1. Extra Width. KIMSUL blankets provide fully insulated fastening edges.





2. Handy Compressed Package. Comes in light, compact rolls—reduced to 1/5th installed length. Easy to handle—easy to apply.

3. Many-layer Stitched Construction. High thermal efficiency. ("k" factor of dependable KIMSUL is 0.27.)

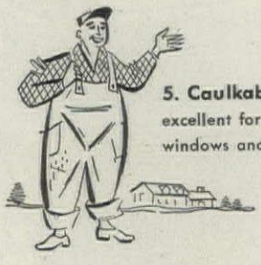


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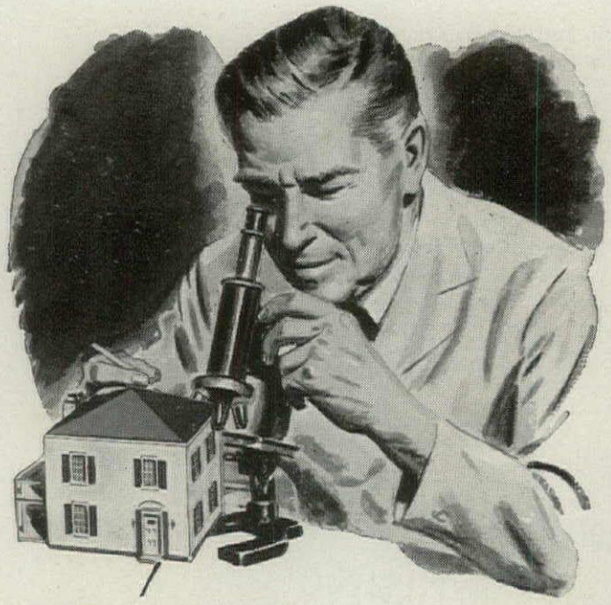
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Insulate when you build.
Over-all insulation
means ready salability.

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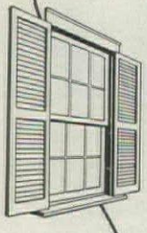
BY THE UNSLEEPING EYE OF SCIENCE

● That home owners may obtain even greater value in wood products such as doors, frames, screens and windows, N.D.M.A. exercises unceasing vigilance. Periodical tests are made of toxic preservative solutions used by N.D.M.A. licensed manufacturers. Mill practices and equipment are inspected. N.D.M.A. minimum standards are rigidly maintained.

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5. Laboratory check tests of preservative solutions.
6. Educational effort in the public interest.



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RAYMOND BLACKWELL and HANS SCHICKELE, architects, 2007 Hopkins St., Berkeley 7, Calif.

GEORGE DAVIS, JR., architect in association with JOHN FERGUSON, engineer, 14423 Sylvan St., Van Nuys, Calif.

FRANK EHRENTHAL, architect and interior designer, De Young Bldg., San Francisco 4, Calif.

EDWARD BARNES, architect, 33 E. 75 St., New York, N. Y.

HERMAN COLE and FRED LIEBMANN, architectural partnership, 415 Lexington Ave., New York 17, N. Y.

ROBERT MYERS, architect, 200 Gregory Pl., West Orange, N. J.

JOHN DUKEHART A.I.A. (continuing the practice of Johnson, Wallwork & Dukehart) 802 Dekum Bldg., Portland 4, Ore.

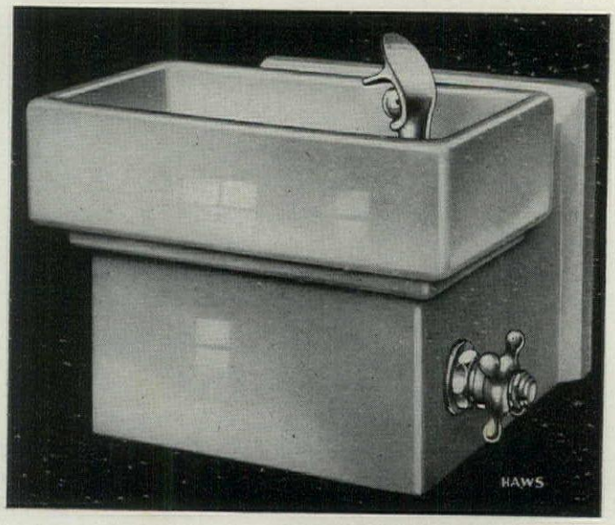
DANIEL ROBBINS & ASSOCIATES, architects, Kilpatrick Bldg., Omaha, Neb.

JOHN MORTON, engineer in general practice, Perry Hill Rd., Montgomery, Ala.

TURNER CONSTRUCTION Co., Chicago Office, Bankers Bldg., 105 W. Adams St.; R. L. Cullum, District Manager; Clarke Knudson, Contract Engineer.

MAURICE MARTINE, interior design studio, 1415 Coast Hiway, Corona del Mar, Calif.

ALLAN MCNAB & ASSOCIATES, industrial designers, 485 Madison Ave., New York, N. Y. *(Continued on page 68)*



MODERN DESIGN,

quality material and craftsmanship make HAWS Drinking Fountains and Electric Water Coolers the architect's choice for store and other type building installation. Durable, dependable, easy operating, simple maintenance... they offer trouble-free service and complete drinking water sanitation. There's a model and design for every particular requirement. You can depend on HAWS for the finest in drinking water facilities. Specify HAWS with confidence! Write today for complete HAWS catalog.

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The NATIONAL Family—
MODERN HEATING FOR MODERN BUILDINGS

The NATIONAL line fills every heating requirement for any type of installation, from small homes to largest commercial buildings. It is backed by over fifty years of nationwide acceptance. Specify modern NATIONAL heating equipment with complete confidence.

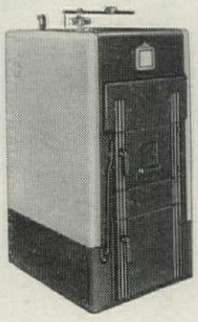
NATIONAL CAST IRON HEAT EXTRACTORS

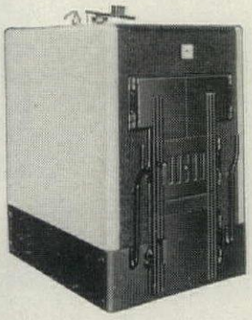
These features—economical heating, long, efficient service, smart appearance, easy convertibility to any fuel—are the engineered results of over seven years of intensive NATIONAL research.



"100" SERIES. Smart and compact for small home installation in kitchens, basements or utility rooms.

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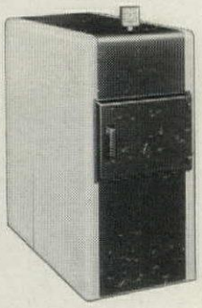
"300" SERIES. For larger homes, small apartments and various commercial installations where more heat is needed.

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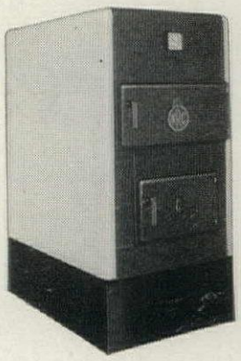
NATIONAL STEEL BOILERS

Their economy of first cost . . . installation . . . operation . . . and upkeep offers outstanding value for residential and commercial heating. Construction and performance meet or exceed all requirements of recognized authorities and codes.



18" and 23" Series Steel Boilers are available in 5 sizes with oil or gas firing for small and medium size residential installations.

For larger homes, smaller apartments and small commercial buildings, 26", 29" and 39" Series Steel Boilers are designed for oil, stoker or gas firing.



And for still larger heating jobs, 16 sizes of Commercial Steel Boilers, designed for hand, stoker or oil firing, and ranging to 35,000 square feet of steam radiation, carry on the tradition of National engineering excellence.

. . . *Everything you need!*

No matter what size or type of building, there is NATIONAL equipment to heat it adequately, correctly. NATIONAL Oil Heating Units in cast iron or steel, Gas Boilers, Unit Heaters, Art Radiators, Aero Convectors or Fin-Tube Convectors, all carry the well known symbol of superiority—the NRC trademark.

For complete information call your nearest NRC district office or write to The National Radiator Company, 221 Central Avenue, Johnstown, Pa.

NRC

The NATIONAL RADIATOR Company

JOHNSTOWN, PENNSYLVANIA

Good light...plus ceiling patterns as desired— CEILINGS UNLIMITED*

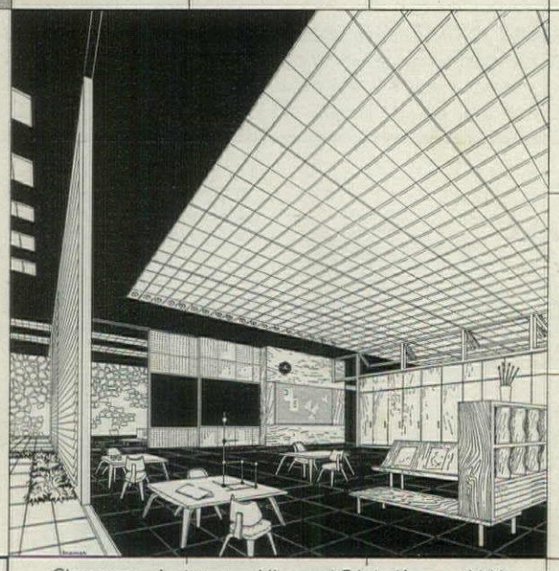
Miller Fluorescent Troffer Lighting Systems have boundless versatility of application. You can install them to form ceiling patterns as desired. Modernize old interiors. Tops for new construction. They give you not only good light, but the plus benefit of CEILINGS UNLIMITED.

Miller Lighting Service is all-inclusive. It covers the needs of Planned Commercial and Industrial Lighting.

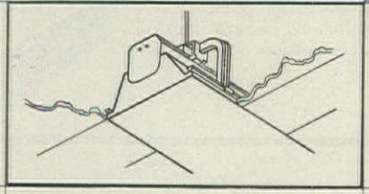
Miller 50 and 100 Foot Candlers (Continuous Wireway Fluorescent Lighting Systems) are standard for general factory lighting. Miller incandescent and mercury vapor reflector equipment has broad factory and commercial application.

Miller field engineers and distributors conveniently located, are at your call

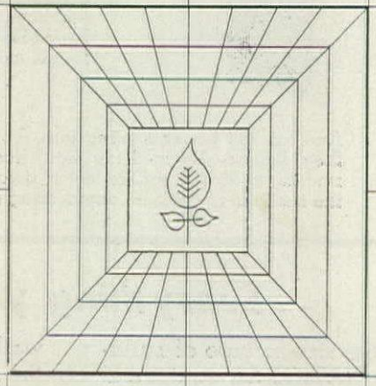
*Reg. Trademark U S. Pat. Off.



Classroom—Architects: Allen and Edwin Kramer, N.Y.



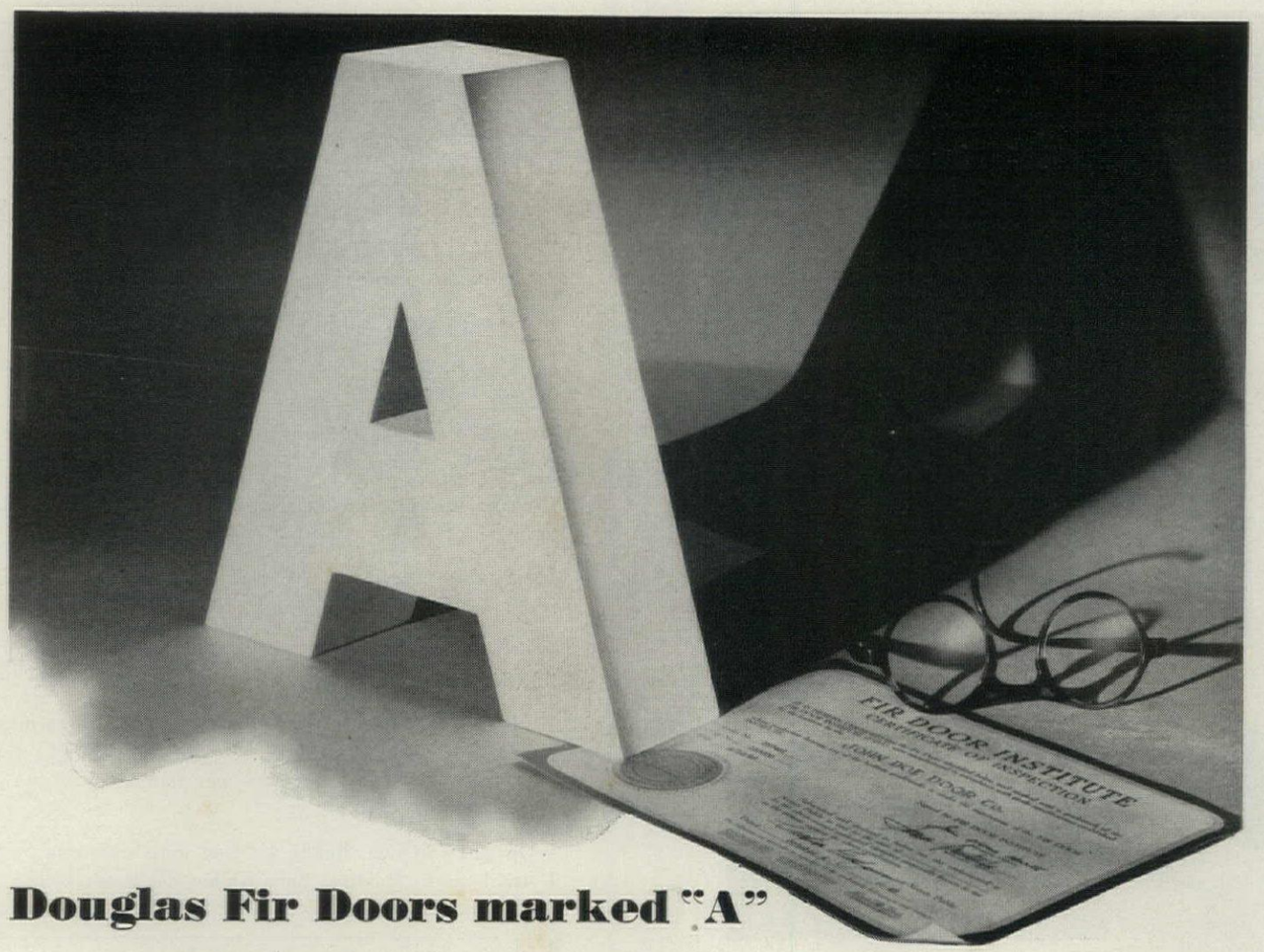
Miller Ceiling Furring Hanger (patented) simplifies installation. Continuous wireway cuts wiring, fitting costs. Bonderized units resist rust Accessible parts . . . easy service.



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4



Douglas Fir Doors marked "A" Meet these Industry-Approved Standards:

GRADE A—*Recommended for Paint or Enamel Finish To be Factory Resin-Sealed*

STILES, RAILS, AND MULLIONS.—This stock shall be heartwood, all vertical grain old growth Douglas fir, Sitka spruce, or Western hemlock, the faces of which must be clear, with the exception that small, inconspicuous, and neatly repaired pitch seams are permissible. Characteristic sound dark streaks are permitted in hemlock. Glued-up rails are permissible in widths over 4½ inches. A moisture-resistant glue shall be used. Mixing of woods is not permitted.

PANELS—FLAT VENEERED.—The standard thickness of 3-ply flat veneered panels shall be ¼ inch after sanding. Each face shall be of a yellowish or pinkish color or a blend of the two, and shall be from smoothly cut veneer, free from knots, splits, pitch pockets, and other open defects. Small streaks and spots of other colors are permissible, provided that they in no manner make the panel unusable for the purpose intended. Shims that occur only at the end of panels and inconspicuous well-matched patches shall be admitted.

PANELS—SOLID RAISED.—The standard thickness of solid raised panels shall be not more than 9/16 inch before sanding and not less than 7/16 inch after sanding. They shall be either all vertical or all slash grain in any one door, and shall conform to the grade of the stiles and rails.

GRADE A FDI.DO

When the letters FDI appear as part of the grade trade-mark they certify that the doors so marked not only meet industry standards but have also been officially inspected by the Fir Door Institute and, at the buyer's request, will be covered by the official, notarized Certificate of Inspection.

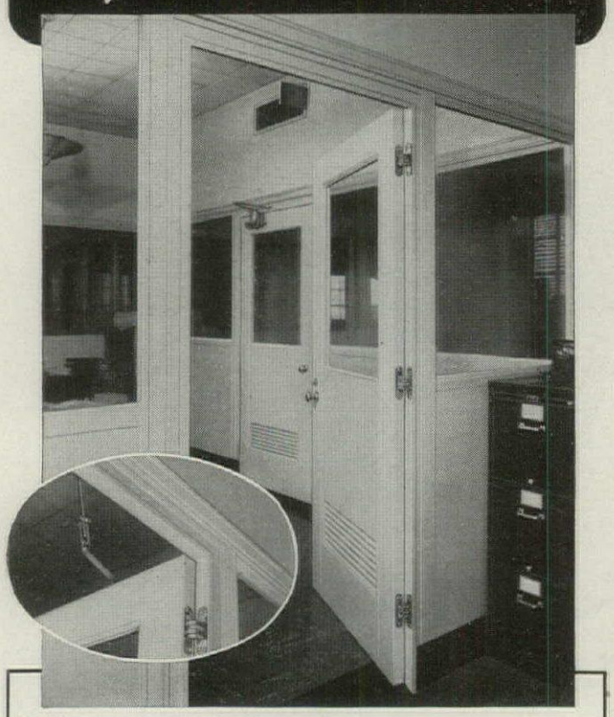
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[Douglas Fir Doors are also made in Grades B, C and MR. Subsequent advertisements will detail the standards for each grade.]

FIR DOOR INSTITUTE

Tacoma 2, Washington

5 STAR features of...
THE HINGE THAT HIDES ITSELF



★ **STREAMLINES**—Soss Hinges are mortised in the door, out of sight, assuring flush, smooth surfaces.

★ **MADE TO TEMPLATE**—Particularly adapted for use on wood or metal doors with or without concealed or surface type door closers. Ideal for offices, hospitals, public buildings, as well as the home.

★ **INTERCHANGEABLE**—There are no right or left Soss Hinges. They are designed to work equally well whether a door swings to the right or left.

★ **ELIMINATES SAGGING DOORS**—Because they are mortised in the door the body of the hinge helps carry the door's weight. The whole load is not placed on the screws as is the case with the old style butt type hinge.

★ **MANUFACTURED FROM ONLY THE FINEST OF MATERIALS**—Operating on hardened steel roller bearings, long life and ease of operation under heavy loads is assured. All pins are made of special analysis hard drawn steel. All links are special heat treated steel. Body sections are cast from special zinc alloy with a tensile strength of 47,000 lbs. per square inch. *Blueprint templates of all Soss Hinges will be furnished upon request.*

SOSS INVISIBLE HINGES

SOSS MANUFACTURING COMPANY
21779 Hoover Road • Detroit 13, Michigan

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LENNOX & MATTHEWS & ASSOCIATES INC., architect-engineers, 644 E. Maple Rd., Indianapolis 5, Ind.

CONQUEST, DUNN & POTTER INC., engineers-contractors, 920 Harris St., Charlottesville, Va.

SAMPSON LEVY, architect, 301 W. 4 St., New York 14, N. Y.

BERNARD WILSON, A.R.I.B.A., 21 Summit Ave., Salem, Mass.

HARRY SIMS BENT, architect, 1240 South Marengo St., Pasadena 6, Calif.

WILLIAM VLADECK, architect and housing and planning consultant, 660 Madison Ave., New York 21, N. Y.

HOWARD MACKEY, architect, 1530 You St., NW, Washington 9, D. C.

JOSEPH BOAZ, architect, 825 NW 16th St., Oklahoma City, Okla.

CORRECTIONS

In the May store issue, the following revisions of credit are due:

On p. 133, Ernst Payer was associate architect for the Howard Johnson store;

On p. 136, Olsen, Ridley & Olson were architects for the Goethals Store Building; John Ridley, designer.

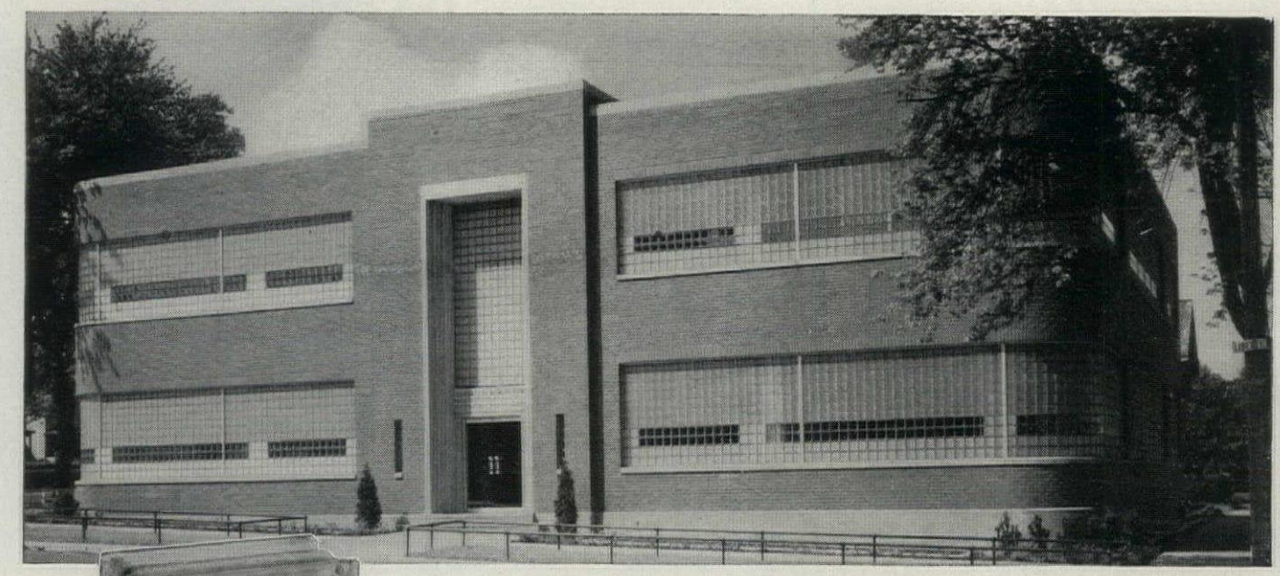
HOLLOW METAL

5 ACRES OF ONE-FLOOR FACTORY
designed for straight line, efficient production

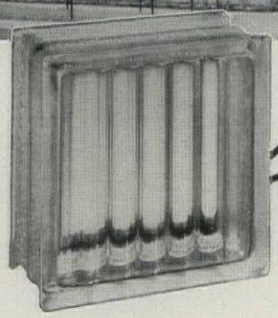


As specialists in the fabrication of bronze, aluminum, steel and stainless steel, we offer our services wherever hollow metal doors, interior trim, elevator enclosures, cold rolled mouldings and metal specialties are required.

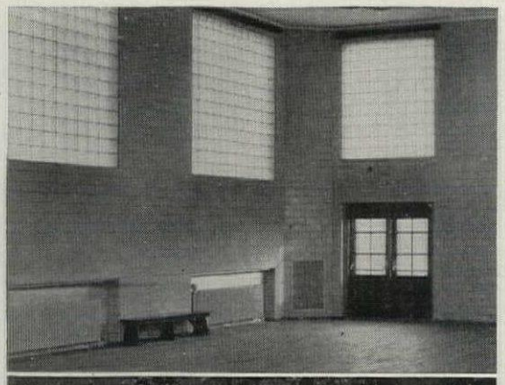
JAMESTOWN METAL CORPORATION
104 Blackstone Avenue Jamestown, N. Y.



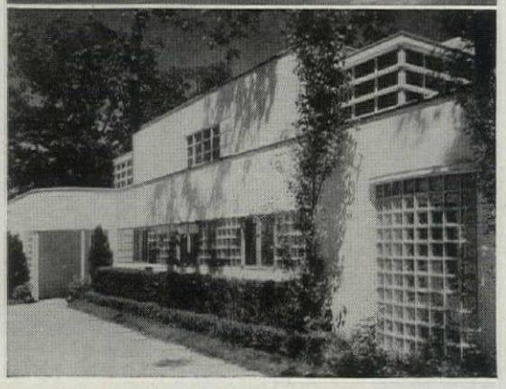
In this trim, modern building, the combination of patterns illustrates the functional versatility of PC Glass Blocks. Essex blocks provide ample light, without glare. Vue blocks provide vision panels. Prism Light-Directing blocks transmit daylight to areas remote from light openings. Easy cleaning, minimum repairs and replacements keep maintenance costs at low levels. Architect, Hugh M. Nelson, Erie, Pa. Photo, courtesy of Continental Rubber Works.



Why PC Glass Blocks are the mark of a modern building



In this school gymnasium, PC Glass Blocks provide plenty of daylight for games of speed and skill. The insulation value of PC Glass Blocks prevents excessive heat loss through large lighting panels, with a consequent saving in fuel costs. PC Glass Blocks are also used in school stairwells, entrances and lunchrooms. Architect, Arthur F. Baer, City of Cleveland, Board of Education.



In this distinctive residence PC Glass Blocks admit plenty of bright cheerful daylight. Their insulating properties make homes cooler in summer, warmer in winter. Privacy and noise dampening add to the comfort of the home with PC Glass Blocks in light openings. Architect, Philip B. Maher, Bluff, Ill.

• PC Glass Blocks are not only smart and modern in *appearance*—they are also extremely modern in their *functional versatility*, in the many ways in which they help to improve operating conditions in your clients' buildings.

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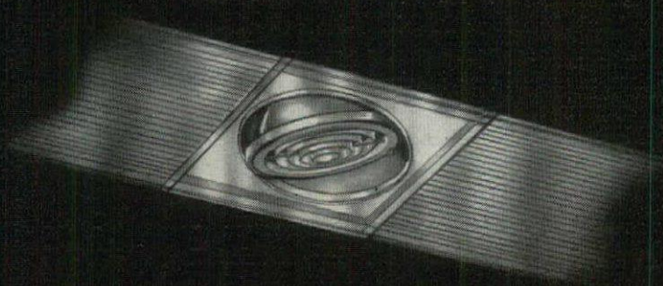
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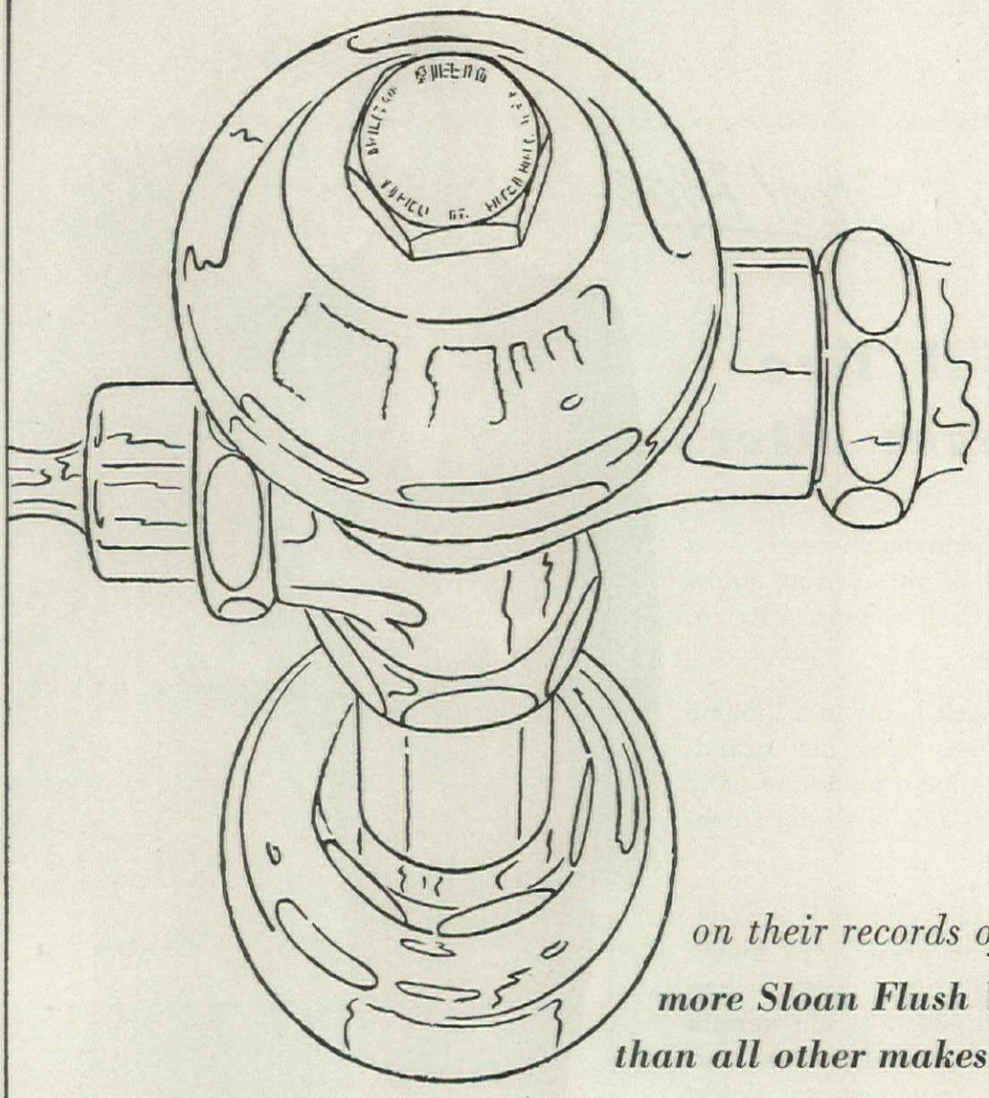
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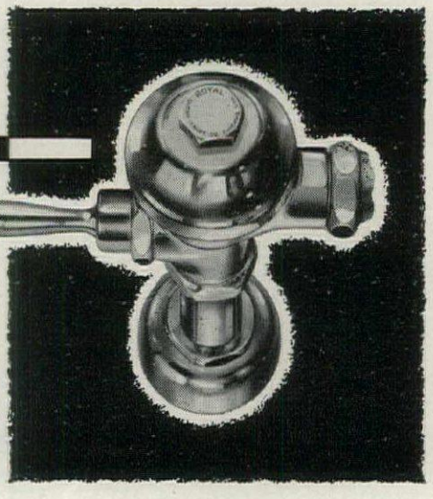
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TRUSCON PLANNING BOARD

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The concrete for the Billings water basin was poured around a closely-knitted web of Truscon Steel Reinforcing Bars, as shown by the illustration. With the tremendous rigidity secured by this interlaced framework of steel bars, resistance of the concrete to destructive forces is at a maximum.

Truscon Concrete Reinforcing Bars are stocked in Truscon's many strategically located warehouses ready for prompt delivery. Equipment is on hand in each warehouse to insure accurate bending to meet specifications.

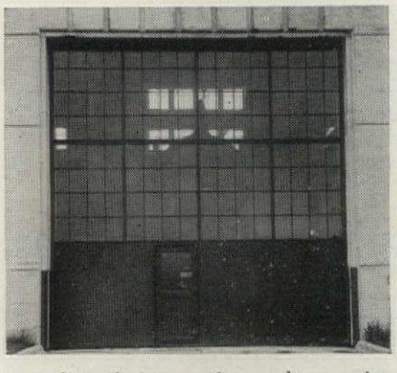
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Water Treatment Basin, City of Billings, Montana. Riedesel Construction Company, Contractors.

Efficient Hangar Door Operation



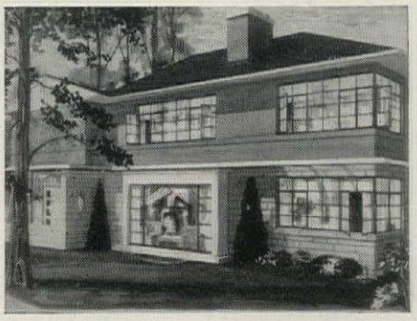
Regardless of what your hangar door requirements may be, Truscon can furnish an efficient, accurately designed unit or series of units. Truscon can supply Vertical Lift, Braced Canopy, Straight-Slide, Unbraced Canopy, or Vertical Lift Canopy type hangar doors. The illustration shows a Truscon Vertical Lift Steel door in Static Test Building 65. Write for full information on Truscon Hangar Doors, and tell us your specific needs.

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• A new research laboratory at Whippany, N. J., is part of a nation-wide plant expansion program now under way.

The Architectural **FORUM** Magazine of Building

Ezra Stoller: Pictorial Services



CONTEMPORARY DESIGN FOR
A NEW UNIVERSITY
IN THE SUB-TROPICS

UNIVERSITY OF MIAMI moves back to boom-bought campus and into first unit of all-mode

This spring the University of Miami started moving into a brand new 245-acre campus in suburban Coral Gables—only yesterday a virgin stretch of pineland, bisected from east to west by a canal and interrupted only by the lonely concrete-frame skeleton of an unfinished building. Even now only one new permanent structure is complete—the striking 46-unit classroom building shown on the following pages. The rest of the campus buildings are temporary and the 7,200 students are shuttling between the new campus and the old one at the center of Coral Gables. But a new student activities building and a library are nearing completion; the old canal-side building (facing page) will shortly be completed as a liberal arts school; and across the canal one of the country's biggest student housing projects is being rushed for fall occupancy (p. 82). Several other buildings (engineering, science, music and drama, another classroom unit) are planned for early construction. Thus the University is stepping into the only completely new, completely contemporary, educational plant in the country.

This will be Miami's third move and second campus in the 22 years of its existence. Back in 1926 it was a new boom child in a new boom town. It had money pledged,* land bought and one building begun. This campus, like the whole town, was to be in the regnant Spanish style. ("Spanish-Colonial was the big thing down here in Florida in those days," says Dr. Bowman F. Ashe, president of the institution since its founding). But the new school was struck by twin disasters—the great hurricane and the collapse of the boom which followed it. Of the first $250,000 pledged, Dr. Ashe was able to collect exactly $2,000; of the next quarter's pledges of $340,000, he got $3,000. He set the university up in a downtown hotel, also Spanish-Colonial and also unfinished. Somehow the school continued, even throve, retaining the original tract if only because no one else would buy it.

When, in 1945, the University began to plan the present expansion it optimistically decided to return to its original spot—but not to its original style. They turned the whole problem of evolving a Master Plan over to Architect Robert Law Weed, with Miss Marion I. Manley as Associate.

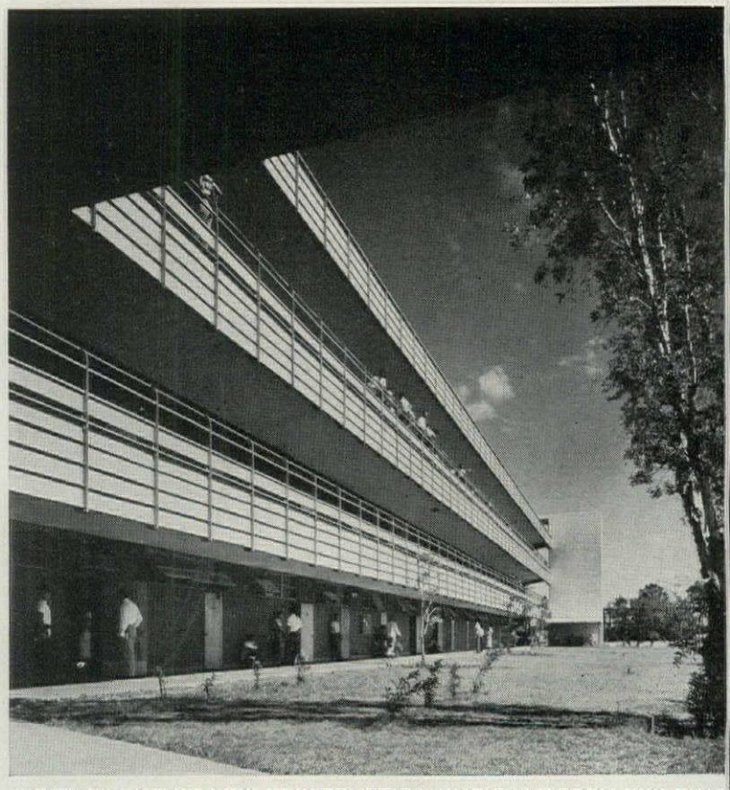
Long-time and enthusiastic residents of Miami, Mr. Weed and Miss Manley set to work. It was, in many ways, an architect's dream commission—to plan a modern educational institution for an ultimate student body of 10,000. There were no strings tied to the assignment—architectural or otherwise. How well the architects have succeeded in meeting the requirements of flexibility and heavy student traffic is apparent in the plot plan at right; and that they have adroitly made the most of Florida's climate is apparent in sketches and photographs shown here.

Many universities with big post-war building programs have blanched when the first bids were opened, and then indefinitely postponed building plans. If Miami's Board of Trustees decided to go full steam ahead, it was a policy of "calculated risk." They were faced with the choice of immediate expansion to handle the huge influx of student-veterans or losing the opportunity altogether.

President Ashe, in command of the whole operation, is well pleased with progress to date. "Everything has cost more than we estimated," he says, "but not more than I thought."

* Including a reputed $5,000,000 from the late George E. Merrick, developer of Coral Gables, whose company handled some $150,000,000 realty sales during the boom.

Ezra Stoller: Pictorial Services

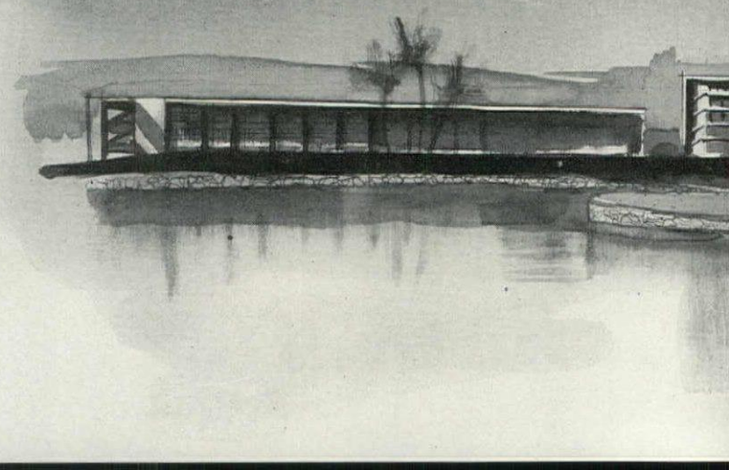


FIRST ON LIST OF NEW CONSTRUCTION WAS CLASSROOM BUILDING

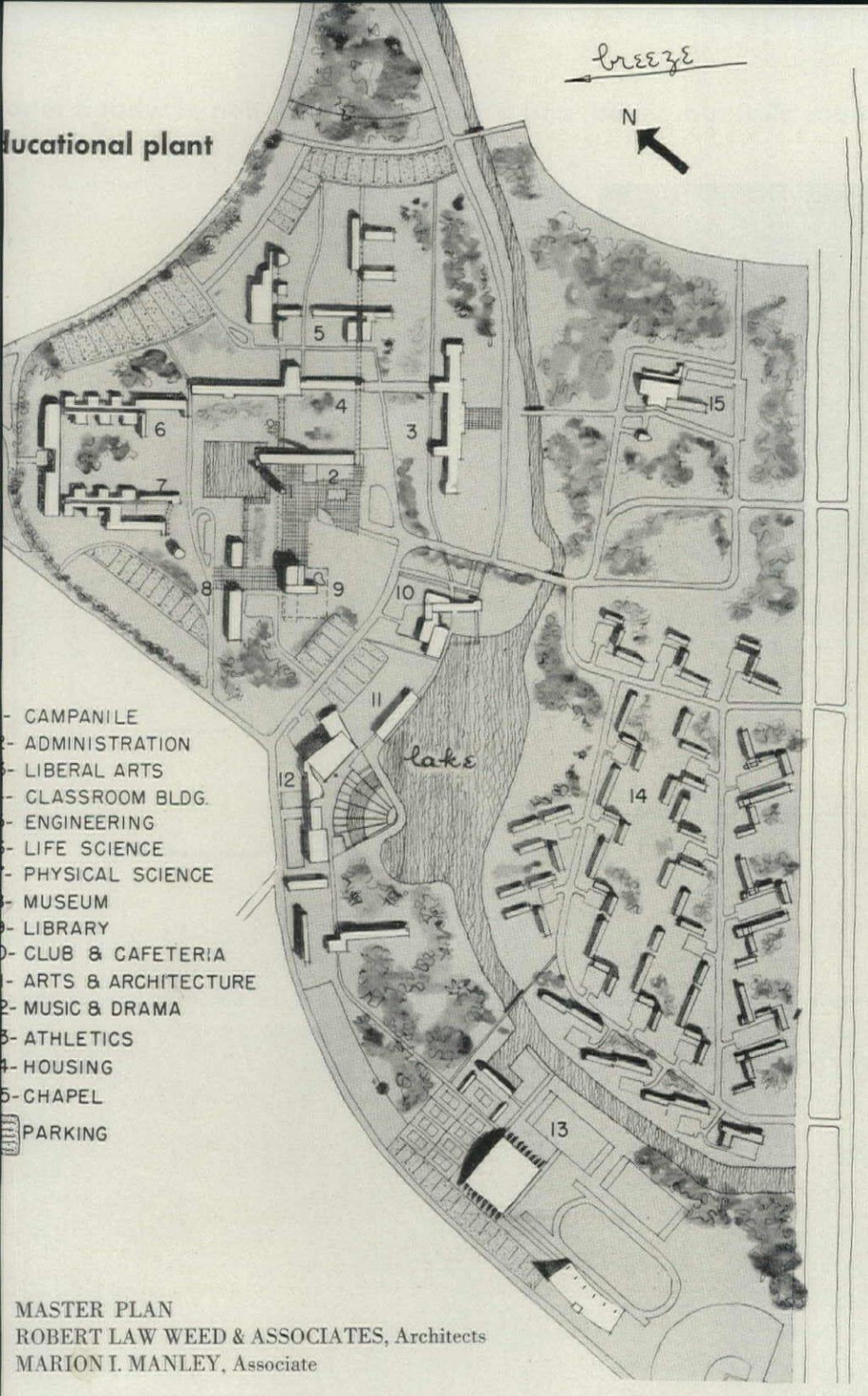


PROJECTED LIBRARY IS EXAMPLE OF USE OF FLORIDA'S CLIMATE

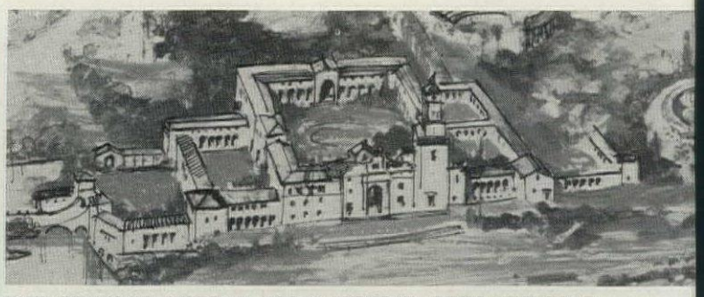
MUSIC AND DRAMA GROUP WILL BE ON SHORE OF ARTIFICIAL LAKE



ducational plant



MASTER PLAN
ROBERT LAW WEED & ASSOCIATES, Architects
MARION I. MANLEY, Associate



THE ORIGINAL SKETCH FOR A LIBERAL ARTS BUILDING

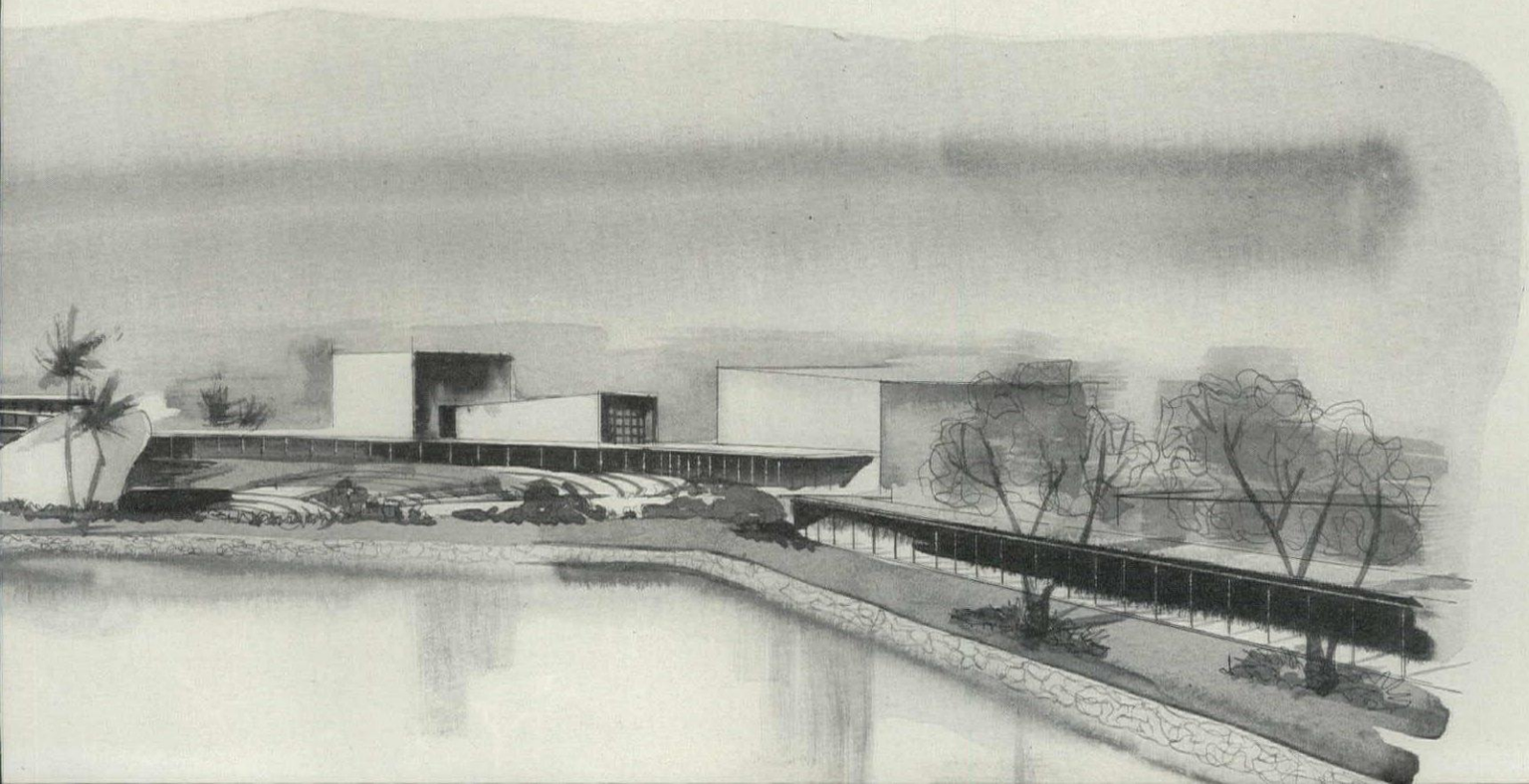


CONCRETE FRAME STOOD UNFINISHED FOR 20 YEARS



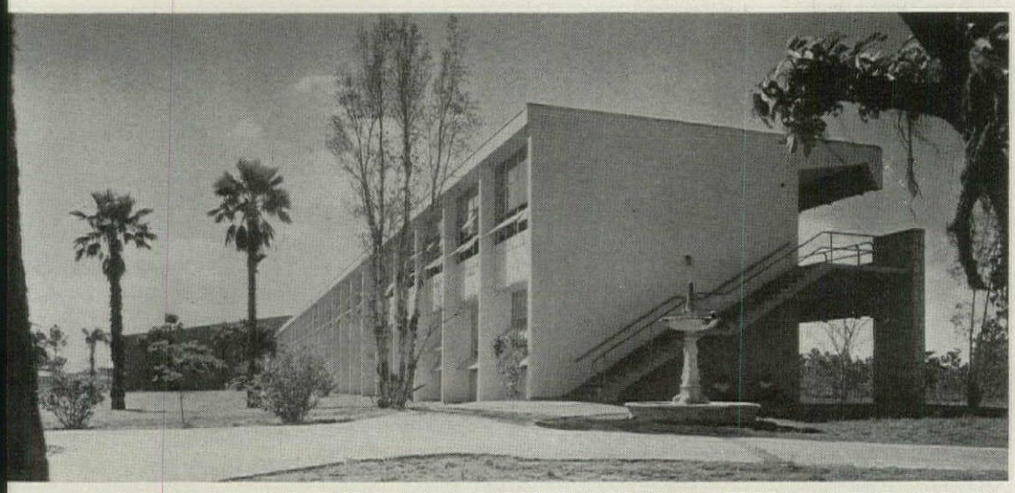
NEWLY DESIGNED BUILDING WILL USE OLD SKELETON

Campus development for the University of Miami started fast in the late Twenties with a design for a liberal arts building, then stopped suddenly. The concrete frame of this first university building which had just been poured has waited two decades for walls, floors and roof. For evidence that the decades have brought some changes in design ideas, witness Architect Robert M. Little's new design, exorcising the ghosts of the Spanish grandees who were to have been such an important part of the original.

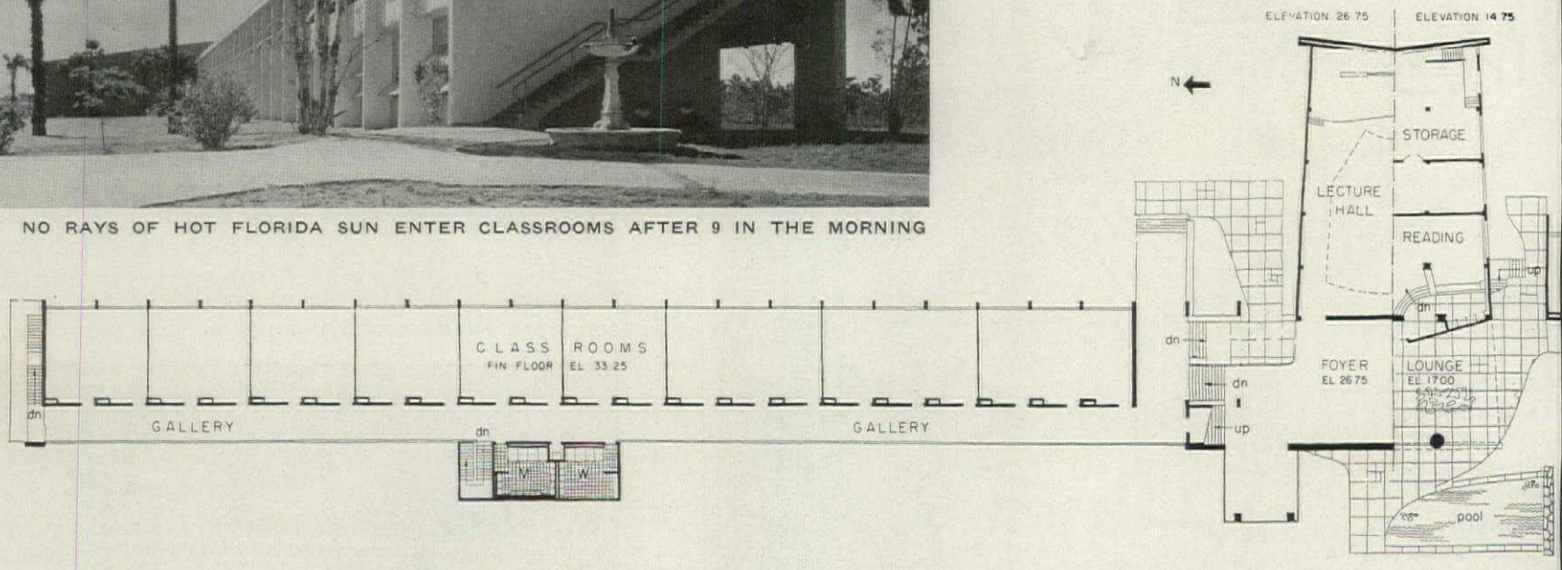


The classroom building—first of the new campus plan completed, and a handsome indication of what is to co

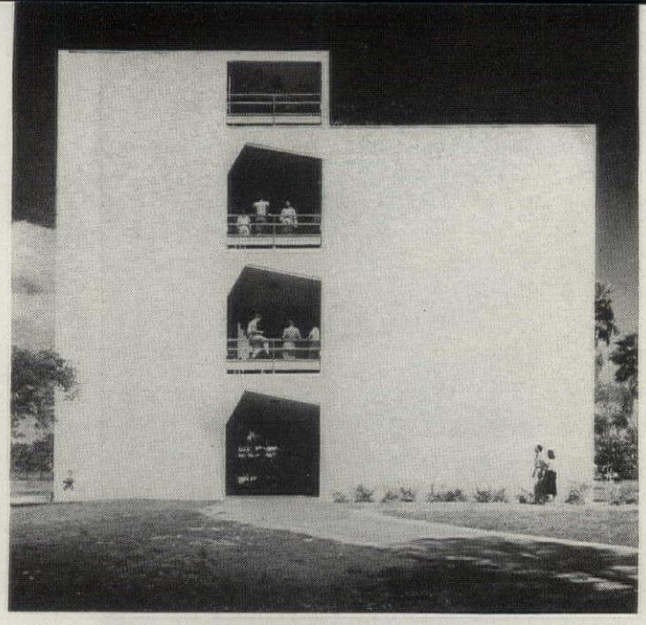
ROBERT LAW WEED & ASSOCIATES, ARCHITECTS
MARION I. MANLEY, ASSOCIATE



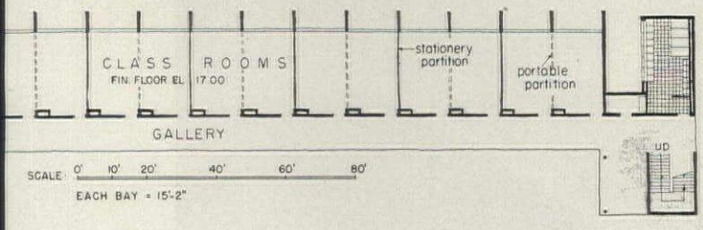
NO RAYS OF HOT FLORIDA SUN ENTER CLASSROOMS AFTER 9 IN THE MORNING



OPEN GALLERIES REPLACE CORRIDORS FOR PASSAGE AMONG CLASSROOMS; CANTILEVERED OUT FROM WALL OF BUILDING, THEIR STEE



SEE COVER FOR COLOR SKETCH OF STRUCTURAL BENTS



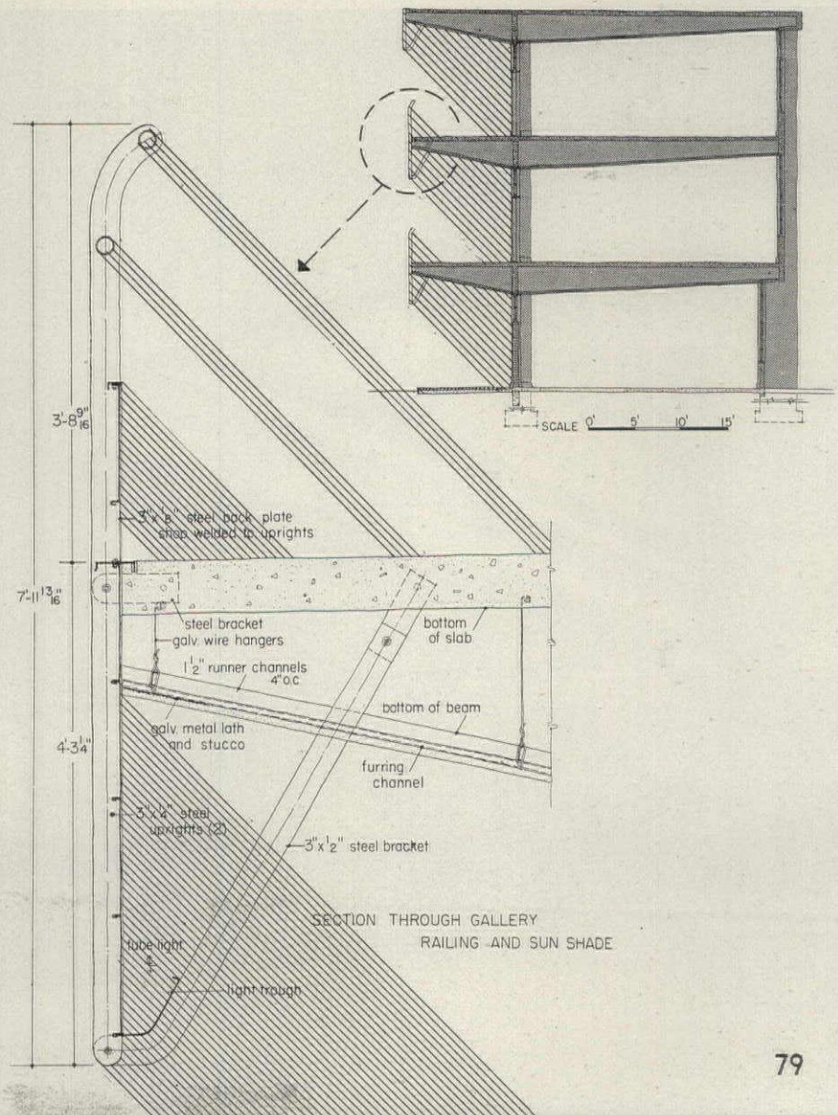
Because of the University's critical need for instructional space, the new classroom building was the first to be constructed. Its sheer bulk (600 ft. long, 63,000 sq. ft. of floor space) made it one of the pivotal units in the master plan and—along with orientation problems described over page—dictated its placement. A sloping site dictated a change in level at approximately the center. This was also the line of one of the main covered walkways leading from the campus center to the north parking lot. From both the standpoint of plan and appearance, it was thus logical to place the air conditioned auditorium (with reading room and outdoor lounge below), at this intersection. The building contains 46 classrooms of varying sizes but is framed in uniform bays—21 in the two-story north wing. 14 in the three-story south wing. All rooms are served by continuous cantilevered galleries along the southwest face which, in addition to circulation, serve to keep solar heat off the classrooms proper. (see p. 81) Toilets and semi-enclosed stair towers are placed at both ends and in center.

The building, entirely of reinforced concrete, employs a handsome and economical structural system. Instead of the conventional beam-and-column, the architects have used a series of rigid bents, spanning the building transversely every 15 ft. 2 in. and cantilevered out 10½ ft. along the south wall to carry the galleries. These bents are tied together laterally by integral floor and roof slabs. Along the north wall, these slabs are ingeniously folded to yield hollow cornices (see diagram below) while along the south, at the fulcrum of the cantilever, they are integral with a deep, thin spandrel beam over the transom windows. In addition to its purely structural merits, this skeleton has been used to protect the classroom against sun, sky glare and rain (over page).

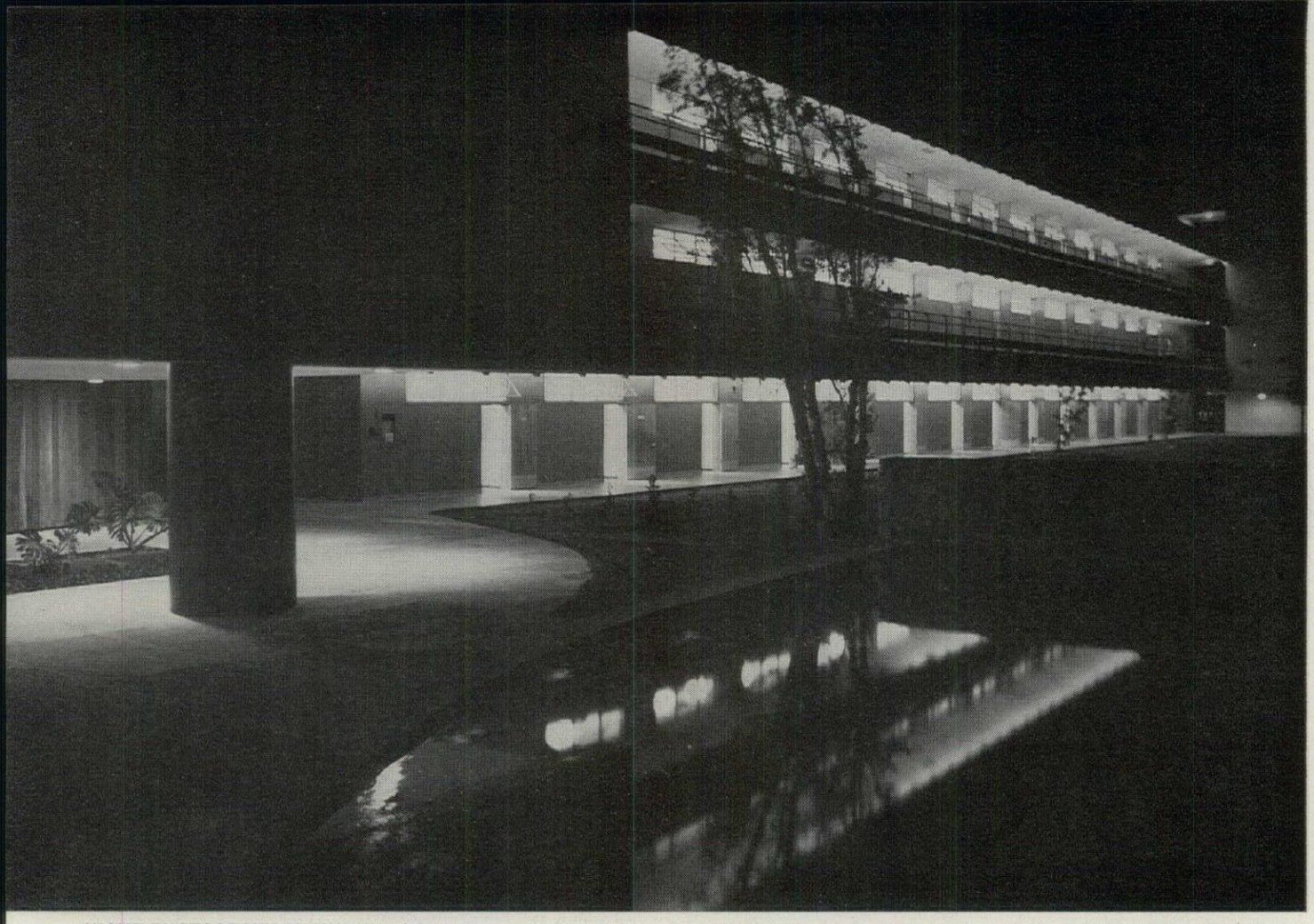
FRAMES EXTEND DOWN TO SHADE THE HIGH TRANSOM WINDOWS



Ezra Stoller: Pictorial Services



SECTION THROUGH GALLERY RAILING AND SUN SHADE



NIGHT PHOTOGRAPH SHOWS THE LONG HIGH WINDOWS TUCKED UNDER THE PROJECTING GALLERIES; DOORS, OPEN, ARE SOLID

OUTDOOR LOUNGE IS SHADY SPOT FOR RELAXATION BETWEEN CLASSES; ALUMINUM GRILLE ABOVE HAS ABSTRACT PATTERN



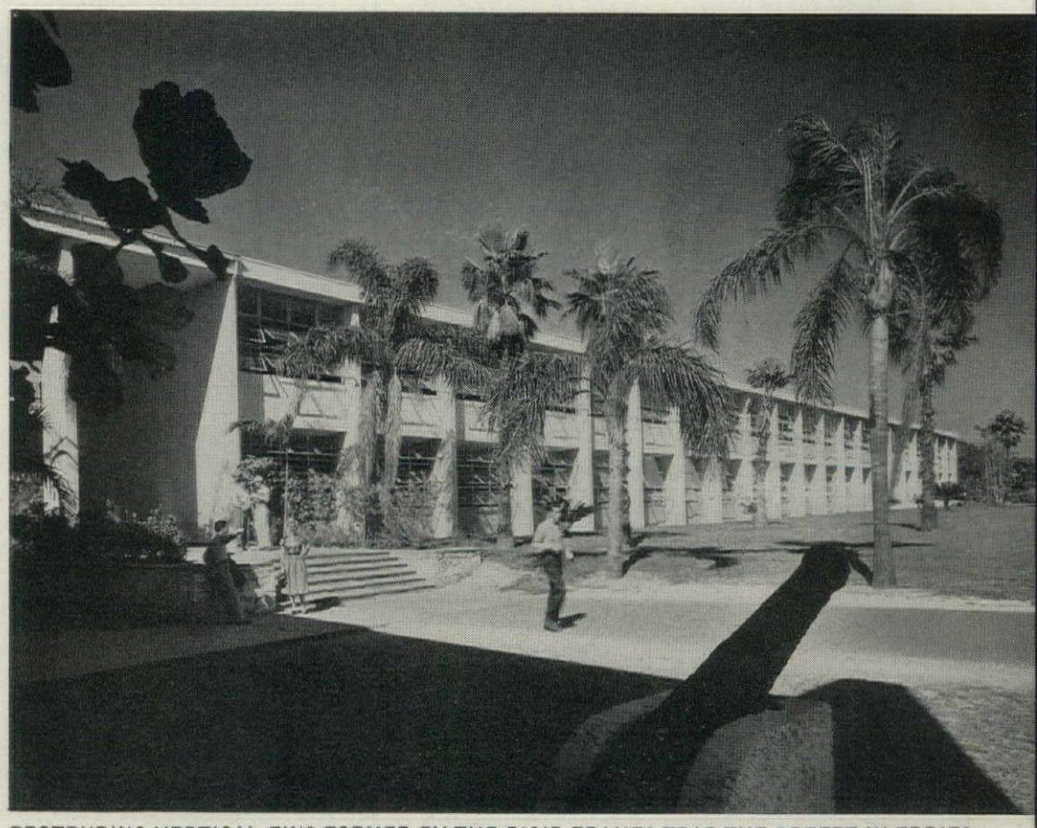
Ezra Stoller; Pictorial Services

Design devices ban the sun and utilize the southeast breeze for comfort and efficient class room conditions

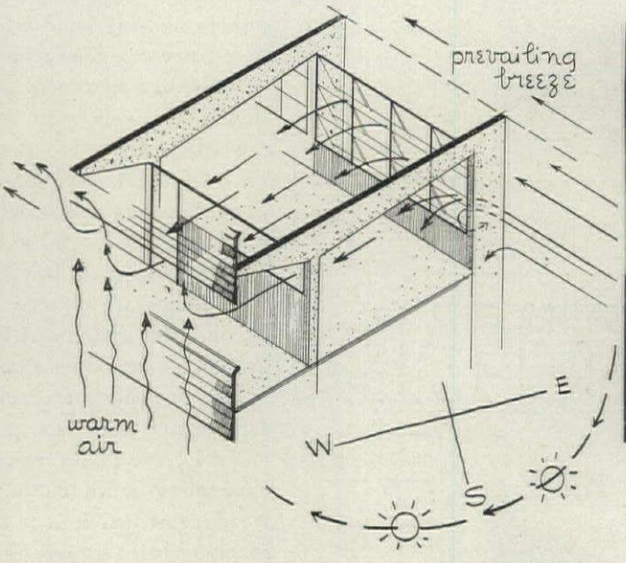
FOUR ASPECTS of the Florida climate are decisive for her buildings: magnificent sunshine; a cool ocean breeze from the southeast; a spring rainy season; and the murderous force of the autumnal hurricanes. In varying degrees, Florida architcture reflects these factors. Building code provisions governing wind resistance in all types of structures are probably the country's stiffest. Recognition of the importance of the prevailing breeze to summer comfort is widespread. However, Florida architecture (unlike that of Southern California) has paid surprisingly little attention to the control of sunlight. As a result, in the big resort cities, the eye is assaulted by glare and the body by radiated heat, endlessly reflected from acres of white stucco. Shade is practically non-existent. (Palm trees—with which the state is obsessed—give precious little shade and the native pines have been mostly chopped down). Covered sidewalks for protection against both sun and rain are also surprisingly scarce.

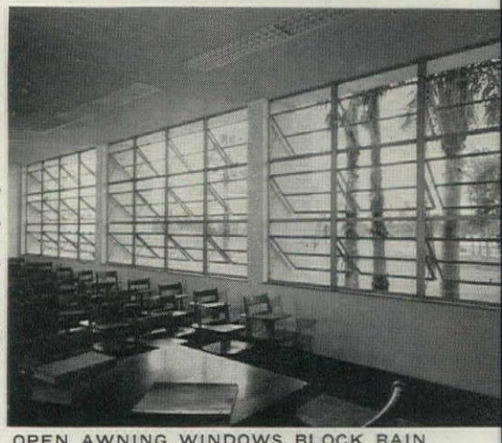
As the first unit to be completed, Miami's new classroom building demonstrates a new and qualitatively higher attention to such climatic conditions. The point of departure in the design of this building was maximum comfort for student and faculty. This meant, primarily, maximum exploitation of breeze, minimum exposure to heat and glare of afternoon sun. After exhaustive studies, it was decided to run the building in the same direction as the prevailing breeze—i.e., southeast to northwest—and place all classrooms on the northwest side. Here, by recessing the window wall, the legs of the concrete bents are made to act as fins which both exclude the sun after 9 a.m. and trap the breeze. By projecting each classroom beyond the one below, each window is given an "eyebrow" against sky glare and rain. On the hot side of the classroom, the only windows are transom type casements placed against the ceiling. Completely protected by the galleries against rain and heat, they are also screened against sky glare by the light steel sunshades along the outer edge of the cantilever. According to the architects, the system is working beautifully. The lightest breeze, deflected by the fins, is pulled across the classroom and sent from the shady side across the rooms out the transom—presumably by the convected currents up the sun-heated face of the south wall (see diagram at right).

ONLY AIR CONDITIONED AREAS are the auditorium and reading room below it. Seating 300 and equipped with screen and projector, the auditorium is framed around a series of rigid bents.



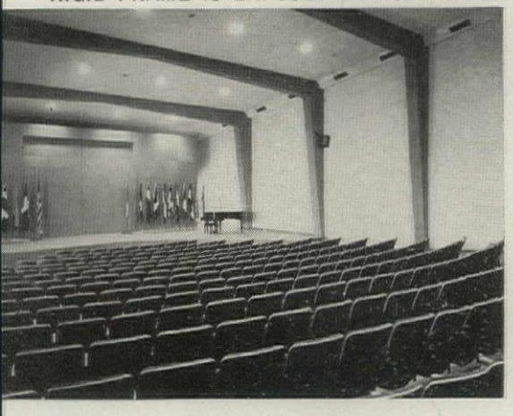
PROTRUDING VERTICAL FINS FORMED BY THE RIGID FRAMES TRAP THE BREEZE IN EDDIES

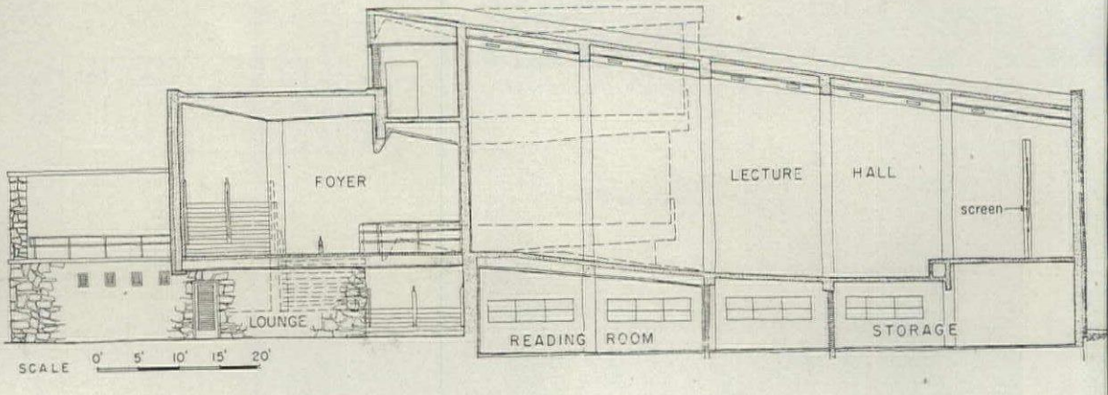




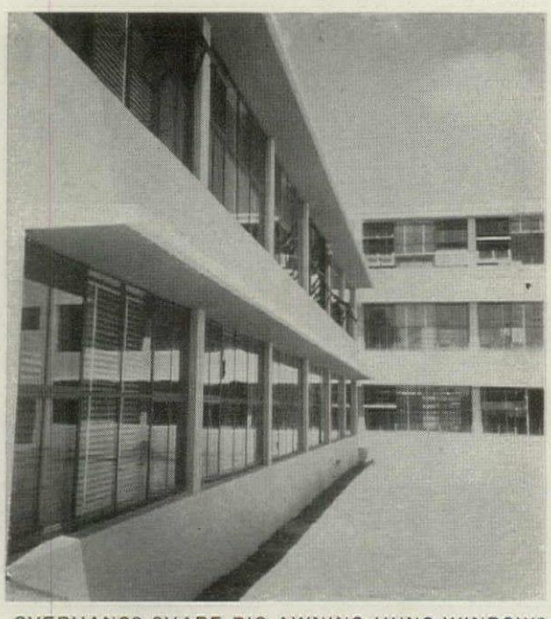
OPEN AWNING WINDOWS BLOCK RAIN

RIGID FRAME IS EXPOSED IN AUDITORIUM





Housing shortage will be solved with the biggest veterans' housing group in the country insured by FHA



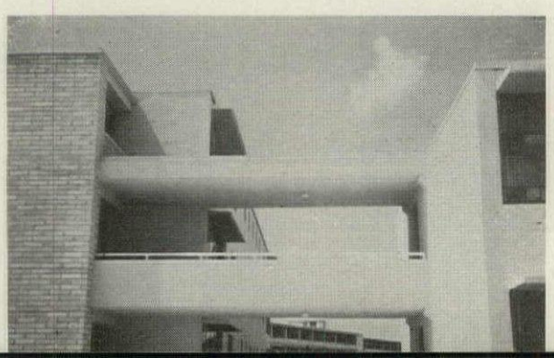
OVERHANGS SHADE BIG AWNING-HUNG WINDOWS



GLAZED AREAS FACE SOUTH, EAST FOR BREEZE



CONNECTIONS BETWEEN UNITS AND STAIRS VARY



The University of Miami's Veterans' Housing project, now nearing completion, is the largest housing project for veterans to be financed so far through the Federal Housing Administration. Total cost of the FHA approved project is $6,283,400, including furniture. Designed to provide good living facilities for veteran students and their families and veteran members of the faculty, the project consists of 533 apartments in 27 two-and-three story structures, complete with nearby service and community buildings. Of the apartments, 87 have one bedroom, with living-dining room, kitchen and bath; 342 have living room, dining room, kitchen, bath, and two bedrooms; 104 have living room, dining room, study, kitchen, bath, and three bedrooms.

Obviously not the standard dormitory accommodations familiar to college life, the buildings will meet the peculiar current need for housing the great numbers of married veterans with families, and as the crowded conditions in colleges ease in coming years, may well finally become predominantly faculty dwellings. They are ideal for young faculty families, but—with their kitchens—luxurious for dormitory life.

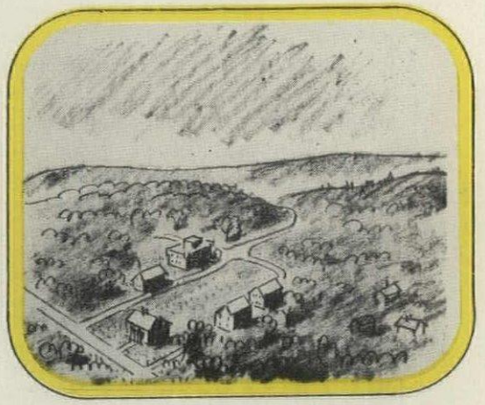
At present, student renting schedules are: 1 bedroom, $77.50 per month; 2 bedrooms, 4 students $150 each per semester; 3 bedrooms, 6 students $150 each per semester. Construction was financed in one package, a $5,969,100 mortgage taken by The Trust Company of New Jersey. Arrangements for final financing are in process, and completion date of construction is set for August. Most students live now in temporary housing, or in the community near—and sometimes not very near—the University. The project, it is predicted, will not only solve the present housing jam, but will save the veteran students money over present higher rents for less desirable quarters.

Individual apartment buildings are designed and oriented so that every living room and bedroom faces south or east into prevailing breezes. Bathrooms, kitchens, and utilities are on the lee side. The exterior wall of the windward rooms is a screen of projected steel sash, well protected from the rain and sun by overhangs and hinged so that the awning type windows may be left open during the brief, furious rainfalls.

Buildings are of three basic types, two or three stories in height, with differing treatments in stair connections. Playgrounds for children adjoin laundry drying yards.

Bearing walls of concrete block, manufactured on the site for economy, are used perpendicular to the outside wall, and are solid except for one opening in each wall at each floor, eliminating much cutting and trimming. The floors are of wood construction 2 x 8 in. joists throughout, 12 ft. long, spanning between partitions, and thus taking all floor and roof load off the exterior shell of the building. Storagewalls are used throughout for clothes and kitchenware.

OLD SIWASH BUILDS

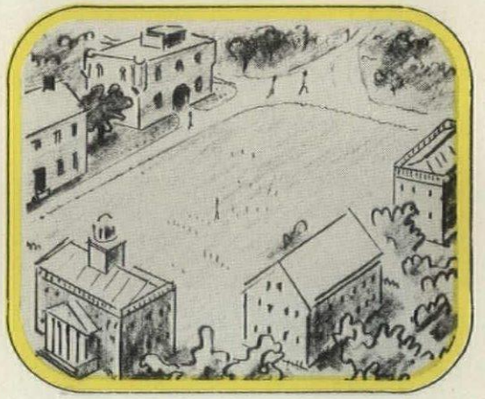


TEXT AND ILLUSTRATIONS BY JOHN ALLCOTT, HEAD, ART DEPARTMENT,
UNIVERSITY OF NORTH CAROLINA

This is a story about a small, imaginary college somewhere in America and its problem in building a new building today. Our college here has ivy and a new generation of G.I.'s to house. The story of this college sums up the aspirations and problems of colleges everywhere in our country.

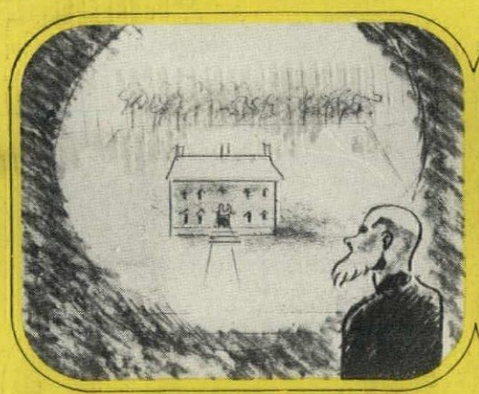


The president of Old Siwash sits in his office, looking at a picture of Captain McGarkle, the founder of the college. The president likes to talk things over with the Captain, an alert and able man in his day. Next to the Captain hangs a print of the college's first building, "McGarkle Hall." It is a simple old building, gaunt and plain, but dignified. Everyone is still immensely proud of it.

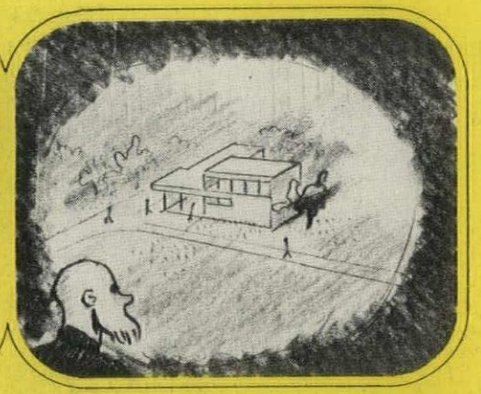


On the present-day campus, McGarkle Hall shows up much smaller and plainer than the buildings which followed: the medieval fortress with battlements, the Colonial mansion facing the highway.

Quite a medley of buildings. And yet . . . there is something genuine and charming about this campus. The buildings convey a sense of the life and growth of the college during the last hundred years.

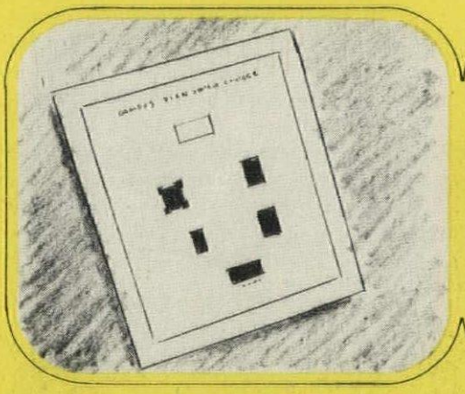


Now, with the influx of G.I.'s, the college needs another building: a small science building, with labs and lecture rooms. What should this new building look like? The president finds this a perplexing question. He knows the building should be of some respectable design. And yet . . .

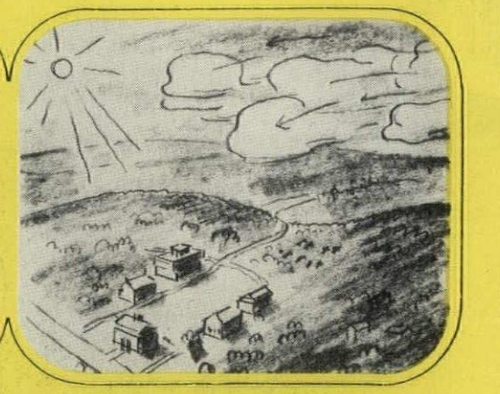


Some colleges are erecting modern structures: buildings which seem to have burst out of the old box-like shape. There are only a few, of course, far outnumbered by older buildings. Naturally, they look a little strange. But our president is young in spirit and open to new ways.

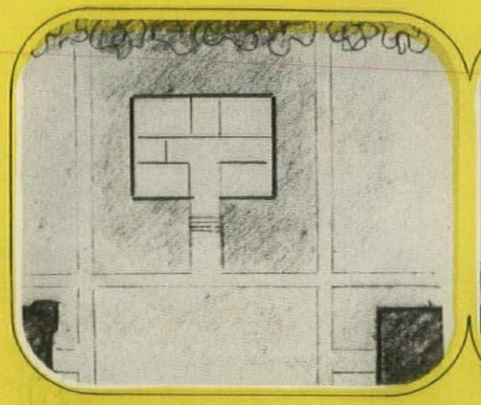
. . . Which of these styles should he choose? To answer this question, the president imagines the steps involved in designing and building each one. We follow him . . . .



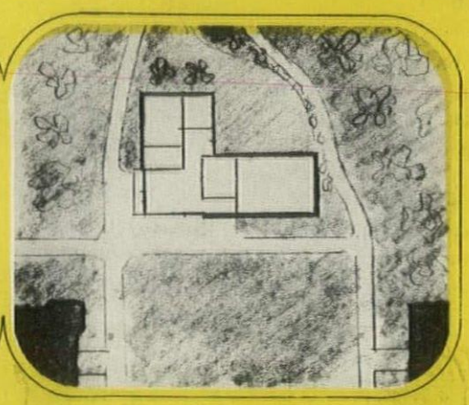
The traditional building begins with a Map of the Campus. We recognize the shapes of existing buildings in black. The new science building is located in outline. It naturally will be placed here, astride the long axis of the campus. The map, drawn on a flat piece of paper, dictates this inevitable placement of the new building. Thus the traditional building begins with a piece of paper.



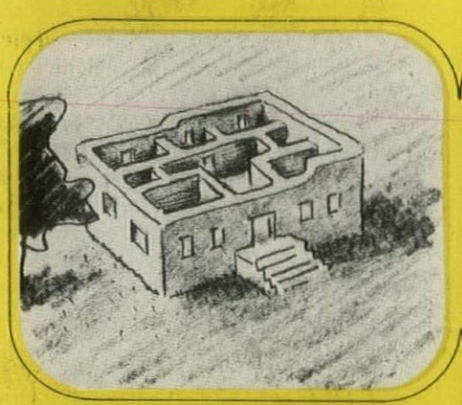
The modern building begins with the reality of the campus, the rolling hills around it . . . the sun and wind above. The summer sun will be unwelcome in some rooms and its path must be plotted. Wind directions must be studied so that windows may be set to trap the breeze during the stifling summer months. At the far end of the campus, a well-worn road winds around the hill to town—the everyday approach.



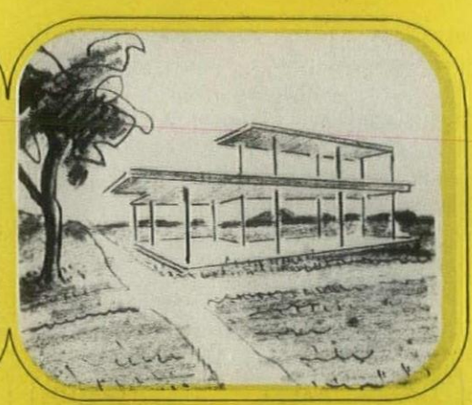
The ground plan of the traditional building quickly takes shape. It is symmetrical, one side mirroring the other. The main elements of the plan have already been set by the building's axial placement. A main entrance faces down the center of the campus. Walks on either side and a screen of trees in back will box off the building. All the classrooms and labs will be corseted within this orderly plan.



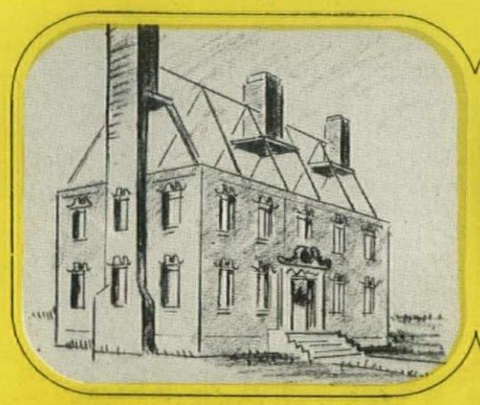
The plan of the nontraditional building may have an irregular shape. And this shape is changed many times before the final plan. The plan evolves as professors are consulted on exact requirements of size, shape, placement and light for their classrooms and laboratories. The main entrance to the buildings are at the left, at that corner where heavy traffic flows. A large parking lot is in back.



The traditional building will be erected in masonry construction of brick or stone, the only kind of heavy construction known when McGarkle Hall was built. Like the college's very first building, the new one will have heavy walls to support the load of floors and roof. Window openings must be narrow so not to weaken the load-bearing walls. And they must be placed so not to interrupt the symmetrical facade.



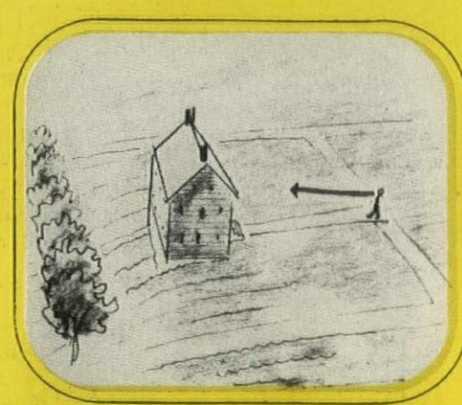
The nontraditional building will have floor slabs of concrete, supported by steel posts and not by masonry walls. This construction permits exterior walls to be broken by doors or windows where needed. Inside, partitions may be placed freely. Thus a sensitive cutting and lighting of rooms is possible as never before. This is the modern freedom to divide space, to open and close it with precision.



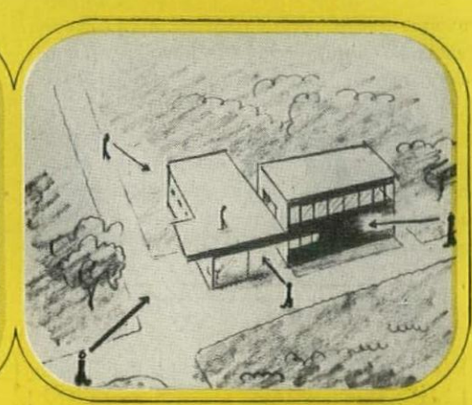
As the traditional building progresses, it is trimmed. Among the ornaments are chimneys—vestigial remnants of the past—which rest on platforms in the sky. A fake chimney also protrudes from the side wall. Necessary windows cut away the shaft and expose the fake, but it is unlikely that this will be noticed. Each window is topped by an elegant crown. All this should captivate country boys down for an education.



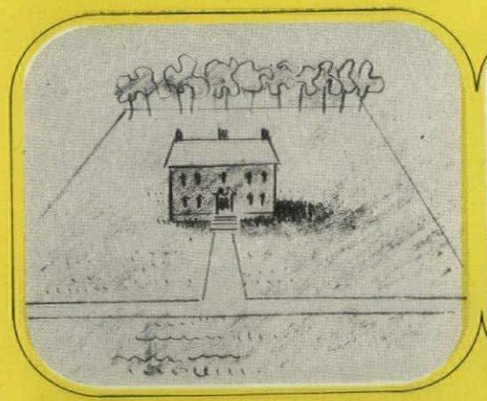
The nontraditional building will not indulge in applied ornament. It will find beauty in structural materials themselves: elegant metal columns; magic panes of glass which cut space—but through which space flows; wall surfaces of any readily available material which blends well with the other buildings. All these structural materials will be frankly used and handled to show off their inherent beauty.



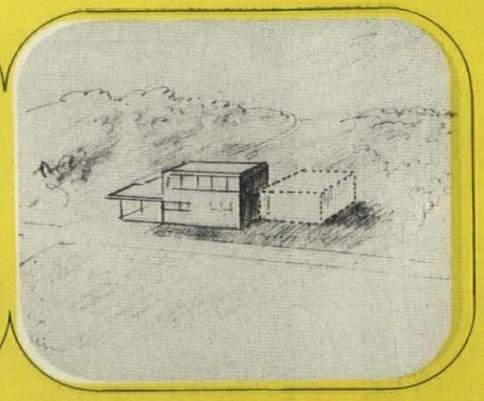
The finished traditional building will be very dignified as one looks at it from the front. From the side or back it may look barren or ugly, but you are not meant to react to these views. The maximum impact of the building is in its formal facade. This is regrettable, especially for this particular building. Its everyday approach is not along the geometrical axis of the campus, but from the town in back.



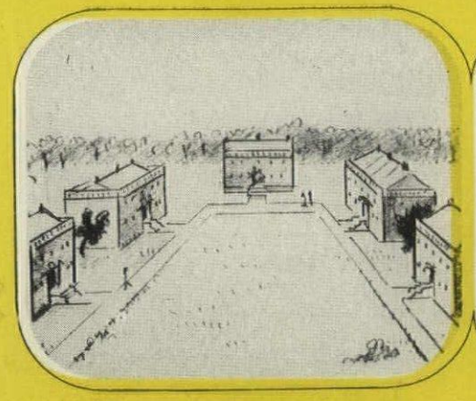
By contrast, the more informal Twentieth Century building is intended to be attractive from any view. As one approaches it from the town or from any direction on the campus, each side is different and inviting. The building does not hold you off at one fixed point in the distance to impress and overpower you. Instead, its open and fluid shape draws you from every side and invites you to live and work within.



Like a statue in the park, the traditional building is complete and final. You can imagine no change or addition to it. This, too, is unfortunate because ten years from now an addition will very likely be needed. But it can't be made without destroying the formal elegance of the monument. This symmetrical building is an inflexible and frozen block; it stands quite aloof from any demands of the future.



For the Twentieth Century building you can easily imagine an addition, as shown by dotted lines. Or new space could be added elsewhere. Easy additions are possible because the building is an organic whole composed of unit parts. The designer's skill has unified the component parts. By the same skill, an existing unit may be modified, or a new unit added, without destroying the unity of the whole.



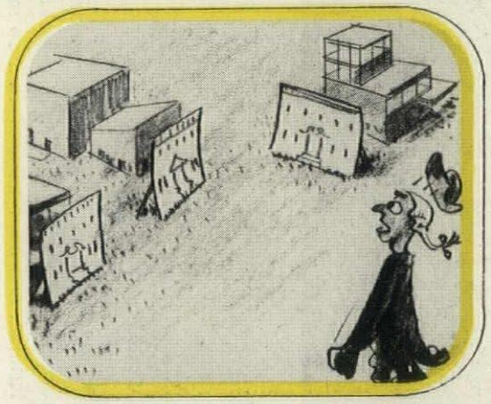
The dream of the Revival architect is to see his building in a setting with all older buildings remodeled to uniformity. This is harmony-through-repetition. It is as if all the buildings magically sprang up over night. But colleges do not spring up over night, and are not restricted to the aristocracy. Repetition of aristocratic forms denies both the democratic nature and the natural growth of a college.



Here is the modern building added. All old buildings are left intact, revealing and not denying the process of history. Old McGarkle Hall, the romantic Victorian building, the new science building—all very different in appearance! But each is the serious best of its time. Together they constitute a tradition of good building. The deep organic unity of changing forms binds the campus together.



Which building, then, should Old Siwash choose? What shall be the Twentieth Century's contribution to this historic campus? Our president sat in his office pondering the images we have seen. What would old Captain McGarkle, the founder of the college, do? What if the architect's dream of a Greek Revival campus were carried out, and what if the Captain suddenly appeared on such a campus?



Old Captain McGarkle was an honest and forthright man, and the plain lines of McGarkle Hall expressed his aversion to sham. He would be surprised and dismayed at false facades concealing Twentieth Century college activities. He would not understand why classrooms, theater, laboratories should all be hidden as things to be ashamed of. Here's what the Captain would say to empty imitation:



"In my day I built this building here! Needs of my time did not include laboratories. We had no scientific methods of lighting, no thousands of students milling about, no automobiles to park. You can be sure that if we had had such problems, I would have built differently. And if my time had known steel, concrete and modern building methods, you can be sure I would have used them."



The president saw the only thing to do—

—He built the modern building. And when he sees students on the campus today he knows his choice was right. For them, the new building has a unique importance. Across the campus, its glass walls reveal the excitement of the busy laboratories within. The whole building is a pulse-quickening symbol of modern life and work. This is the spiritual task of architecture.

BUS DEPOT Loading and traffic problems are neatly solved for this Dakota fleet in a new location set back from street congestion



LOCATION: SIOUX FALLS, S. D.

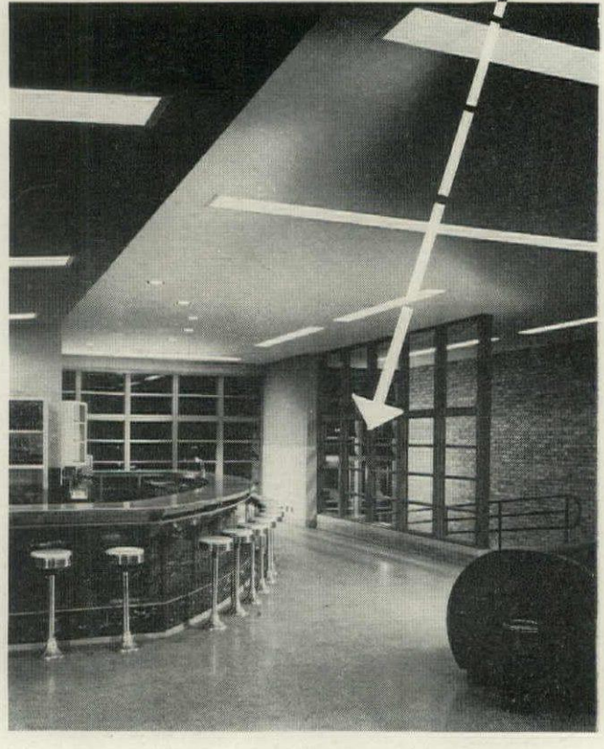
PERKINS & McWAYNE, Architects

CHARLES F. SLOAN and L. EARL McLAUGHLIN, Designers

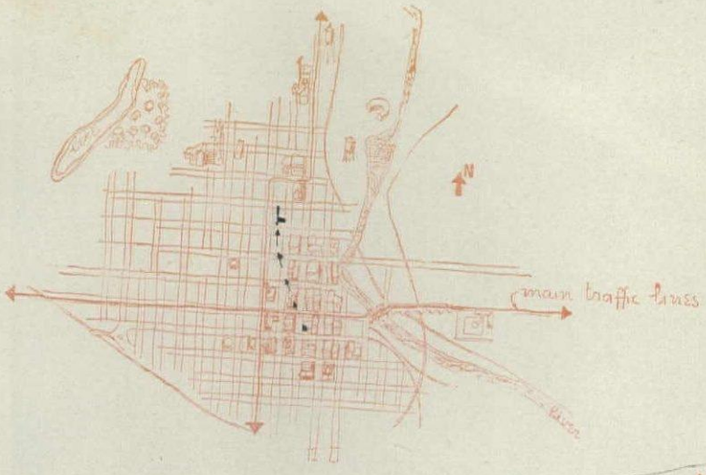
HENRY CARLSON CO., General Contractor

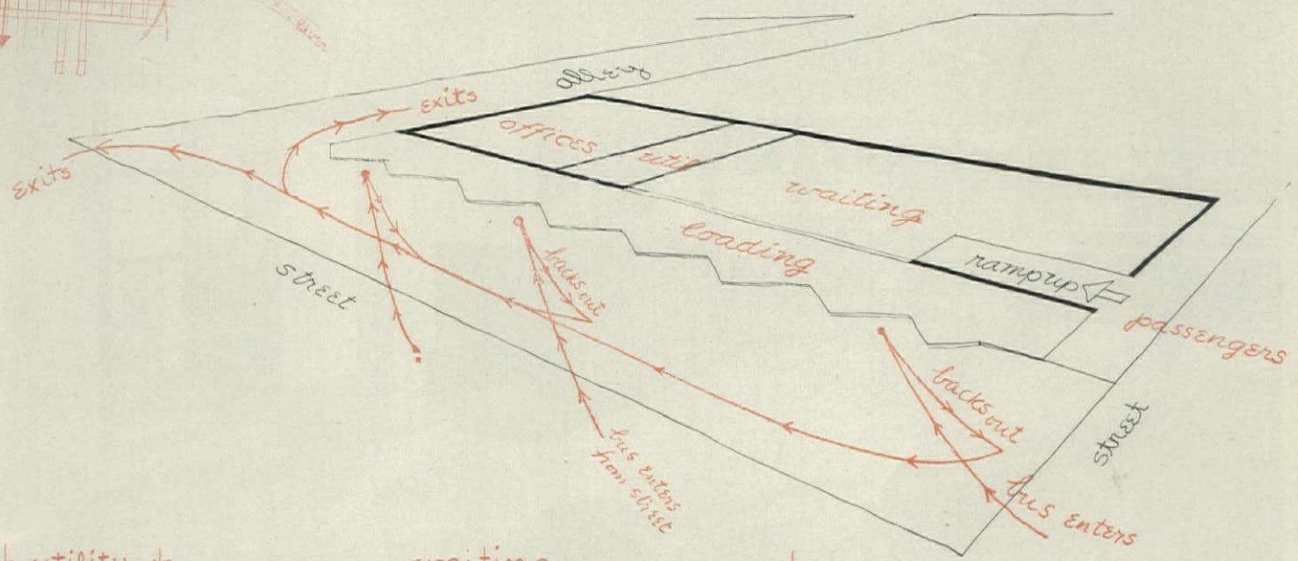
The complicated street traffic problem in this midwest city, typical of many other big and small cities throughout the country, forced these bus companies to seek a new site for their terminal and headquarters. Like so many other street fleets, theirs were creating regular series of honking snarls on the central business artery which their old terminal directly abutted. The old location was in the midtown business section—and their new location also had to be near midtown, for in a city this size preliminary transportation to a bus line is usually not considered justifiable by the potential passengers. After attempts to buy land to make a private loading lot adjoining the old central location had failed, the companies finally located an area of adequate size and good road exposure not too many blocks away, and constructed this commodious building.

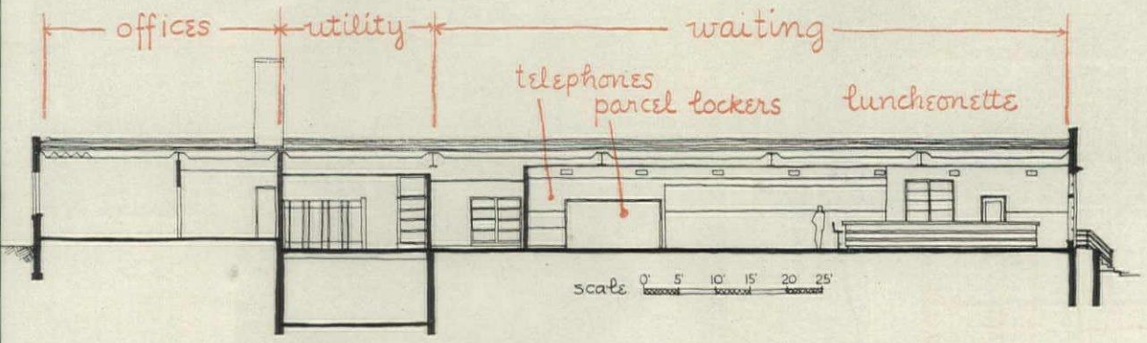
A wide canopy and loading strip—which, experience has shown might well be even wider—decided the shape of the building behind it. The long rectangular plan is divided into a large waiting room with lunch counter and administrative offices beyond the ticket counter and service rooms. Simplicity in design makes for an attractive building of easy maintenance with a pervading atmosphere of efficiency. The only purely decorative features of the design are a plant box and pylon on the busier street exposure.



Thirty-two trips are scheduled in and out of this terminal every day, carrying an average total of 650 passengers; so the old, cramped location was the scene of much annoying confusion. But here in the new area farther uptown, the incoming buses merely steer into the right slots, deliver and accept passengers, back out, turn, and go back on the road, via the alley. The avenue at right angles to the entrance ramp is the more important adjacent feeder street. The other, because of a steep hill to the west, is fortunately little used for either pedestrian traffic or vehicular traffic other than the buses.



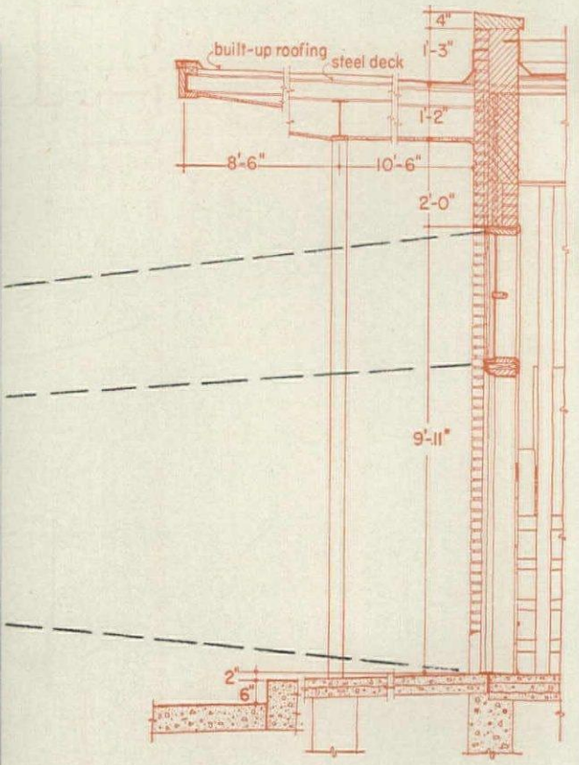




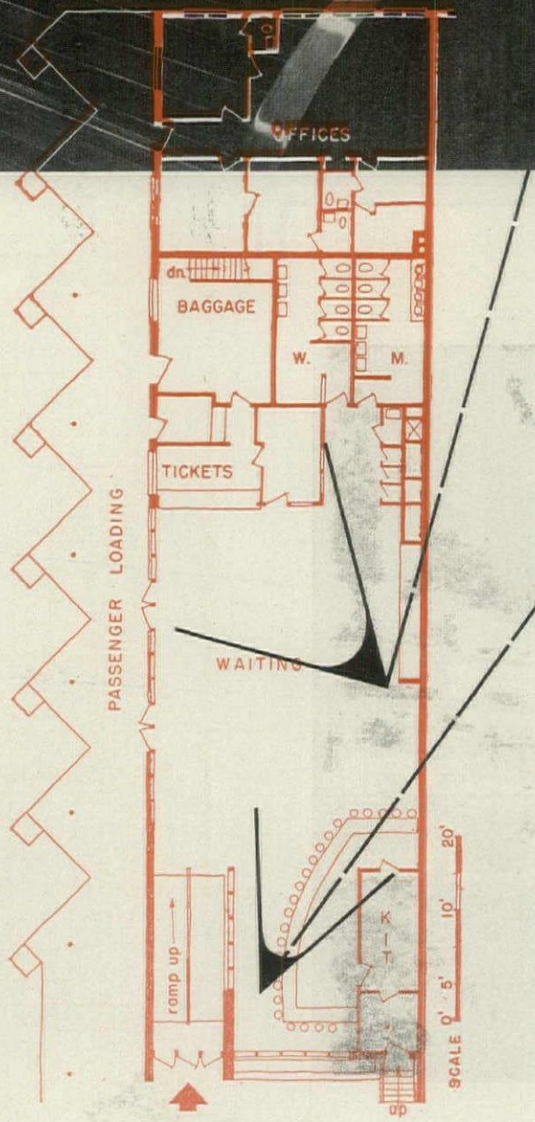
NIGHT VIEW FROM LOADING PLATFORM INTO THE LIGHT, ROOMY WAITING ROOM

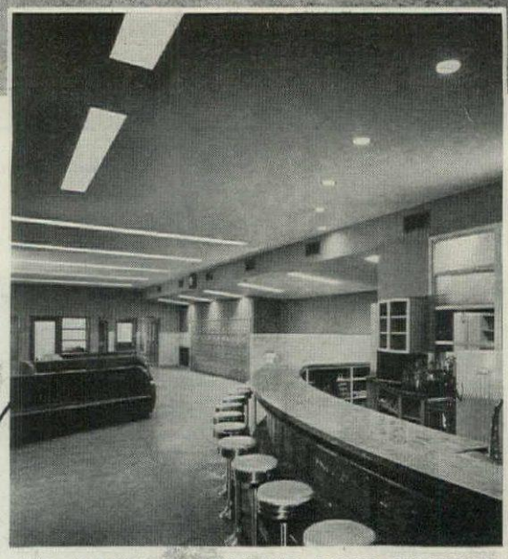


Everett Kroeger









TWO VIEWS OF WAITING ROOM INTERIOR

CONSTRUCTION OUTLINE: Foundations—reinforced concrete. Exterior walls—face brick, 8 in. back-up tile, Sioux City Brick & Tile Co.; inside—wood frame, Rocklath, U. S. Gypsum Co., plaster or hollow tile. Columns—Lally Column Co. Structural steel—Carnegie-Illinois Steel Corp. Floors—reinforced concrete. ROOFING—The Barrett Co. Insulation—Nu-Wood, Wood Conversion Co. Bar joist—Sheffield Steel Corp. Deck—steel, Wheeling Steel Corp. SOUND INSULATION—Cushiontone, Armstrong Cork Co. WINDOWS: Sash—Farley Loetscher Co. Glass—Libbey-Owens-Ford Glass Co. FLOOR COVERINGS: Asphalt tile—Armstrong Cork Co. Rubber—Goodyear Tire & Rubber Co. Terrazzo—Venice Art Marble Co. WOOD AND METAL TRIM—Farley Loetscher Co. HARDWARE—Schlage Lock Co., P. & F. Corbin and Brookline Mfg. Co. PAINTS—Devoe & Raynolds Co. ELECTRICAL INSTALLATION—thin wall conduit, Frank Adams Co. Switches—Pass & Seymour. Fixtures—Hub Electric Co. PLUMBING FIXTURES—Crane Co. Soil pipes—cast iron. Waste and vent pipes—steel. Water closet connections—Sloan Valve Co. Water pipes—copper. HEATING—forced air. Depot—Dravo Corp. Offices—Floral City Mfg. Co. Grilles—U. S. Steel Corp. Regulators—Minneapolis-Honeywell Regulator Co. Water heater—Crane Co.

DOCTORS' CLINICS

Office shortages and the high cost of equipment are leading many doctors into cooperative practice. The following eight pages show how some of them have solved the problem.

The small private clinic, in which several doctors pool their resources for equipment and office space, saw a brief popularity after the first World War and in the early Forties. It is here again in the current postwar period credited mainly to the shortage of office accommodations. The present trend may also be connected with the fact that group medical practice on a large scale has been a growing (though little-recognized) phenomenon within private medicine for many years. At present there are 500 large private clinics in America, staffed by a corps of specialists and boasting elaborate equipment which one general practitioner could never afford.

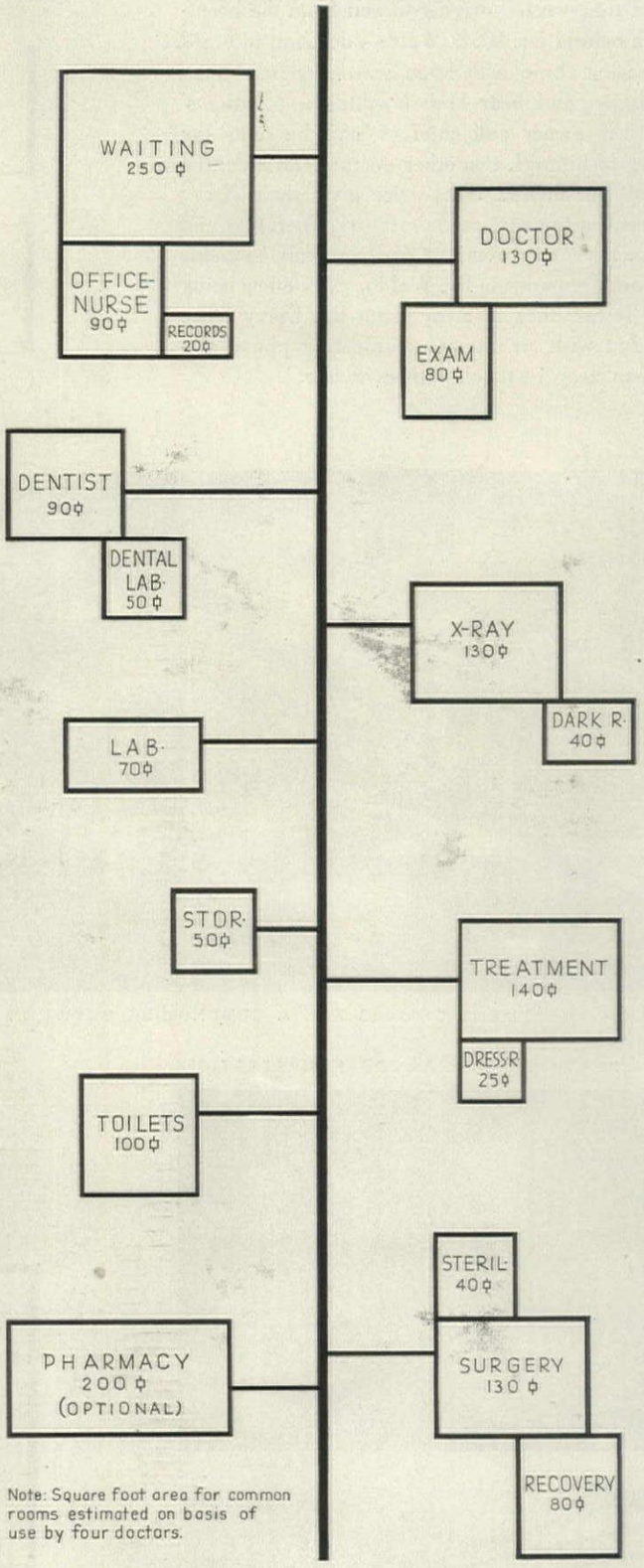
The clinics shown in the following pages are not representative of this large, highly specialized group work. However, they are an offshoot illustrating the advantages of even small-scale consolidation (average group: four doctors), which in many cases cuts down overhead by as much as 15 per cent. Most of the buildings contain X-ray equipment, fluoroscope and electrocardiograph machines which are essential to thorough diagnosis and treatment and which are used jointly by the cooperating physicians. In most cases the doctors also share reception room space and need only one secretary to handle all office work.

It is when the group practice is large enough to include ten or more doctors, however, that the real saving begins. It is estimated that one physician can keep his mechanical equipment busy for only 10 per cent of the working day. The rest of the time it stands idle and his investment goes to waste. With ten doctors the machinery could be kept constantly busy and the investment would pay for itself.

Another important cost aspect is the inclusion of a pharmacy in the clinic building. Experience indicates that a completely equipped clinic for four doctors can be paid for in ten years from the pharmaceutical profits alone.

There are other advantages to be found in group practice. The small clinic can be built on comparatively inexpensive land away from the center of town and offers a considerable saving over comparable space in large midtown medical buildings. Suburban and small-town doctors find it particularly convenient to be out of congested business districts and nearer to the homes of their patients. Proper planning makes it possible to handle a larger number of patients in a shorter time and parking space can easily be provided. Perhaps because of these factors the majority of recent small clinics have appeared in Southern California where the suburban spread is notorious.

The small clinic is actually a very difficult building type to pin down, however, and generalizations are apt to be inaccurate. Those shown here cost from $15,000 to $105,000, contain one to 12 suites and are owned variously by the group of doctors involved, by a senior doctor who rents part of his space and by an outside landlord. Some are set up with a team of specialists; others with competing general practitioners; others with a doctor-dentist combination. Occasionally we find the traditional one-man operation combined with family living quarters. Perhaps the only glittering generalization that can be made about this postwar crop of clinics is that, unlike their predecessors, which were mainly renovation jobs, these are all new buildings—with the advantage of from-scratch planning for circulation, lighting and equipment.

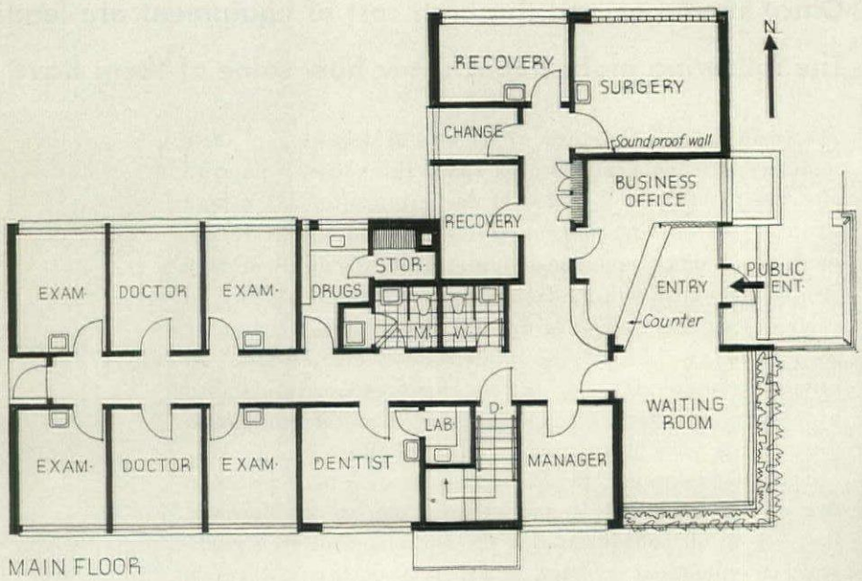


Note: Square foot area for common rooms estimated on basis of use by four doctors.

1. Waldo Clinic plans to amortize its $50,000 cost by increased medical practice.

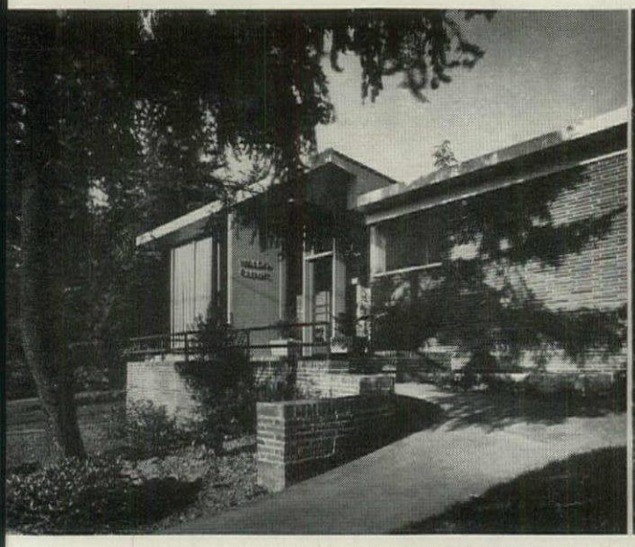
SMITH, CARROLL & JOHANSON, Architects
NELS MORTENSEN, Contractor
W. E. WALDO, M.D., Owner

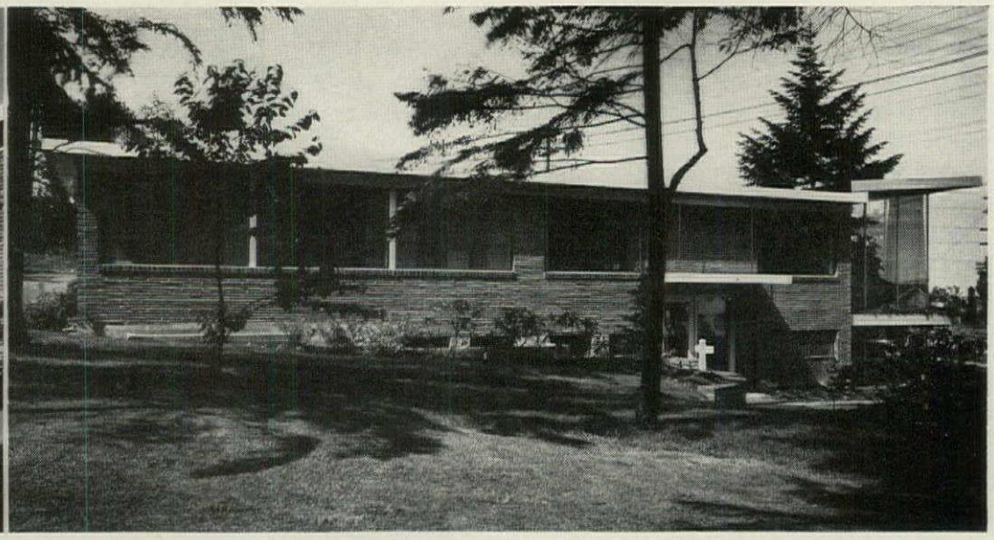
Exorbitant midtown rents, the urban parking problem and time wasted driving to and from the hospital were behind Dr. W. E. Waldo's decision to build this pleasant clinic away from Seattle's central business district and near both hospital and patients' homes. As owner and chief of staff he rents the building to himself, two other doctors and a dentist for $600 per month. This price gives them X-ray equipment, a fine clinical laboratory, operating and basal metabolism rooms. "We can truly say this plan works" comments Dr. Waldo. "My office being on the lower floor is away from the heavy office traffic, but with an intercommunicating phone system I can keep in touch with everyone."



MAIN FLOOR

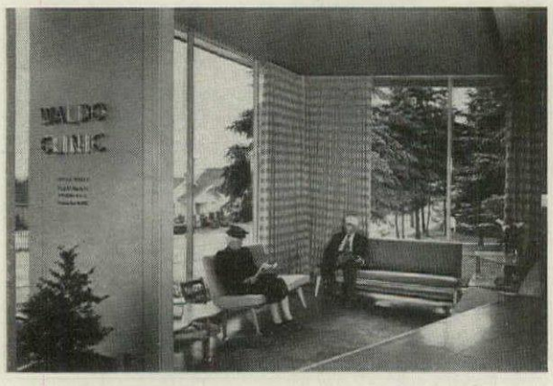
P. A. Dearborn

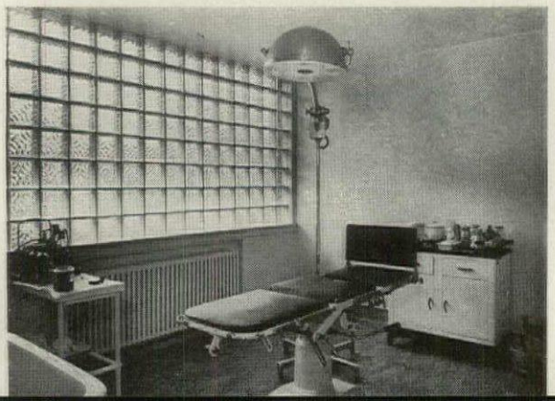


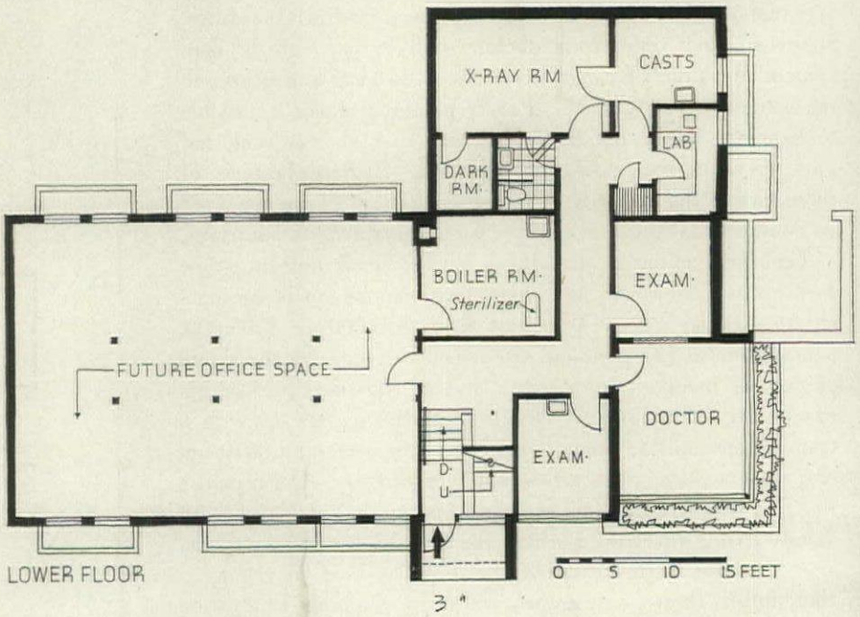


EXTERIOR TREATMENT STRIVES FOR A COMPROMISE BETWEEN RESIDENTIAL AND INSTITUTIONAL CHARACTER TO FIT NEIGHBORHOOD

DESIGN FEATURES SPECIALIZED FENESTRATION







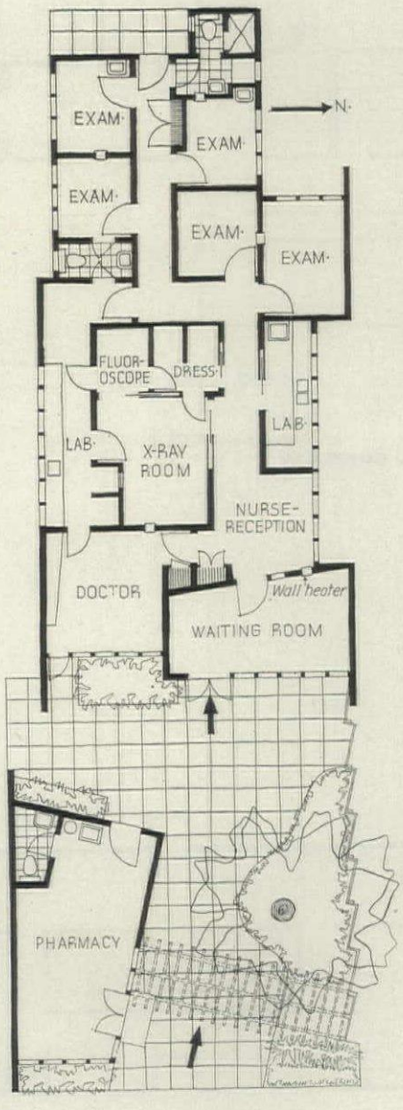
LOWER FLOOR

3"

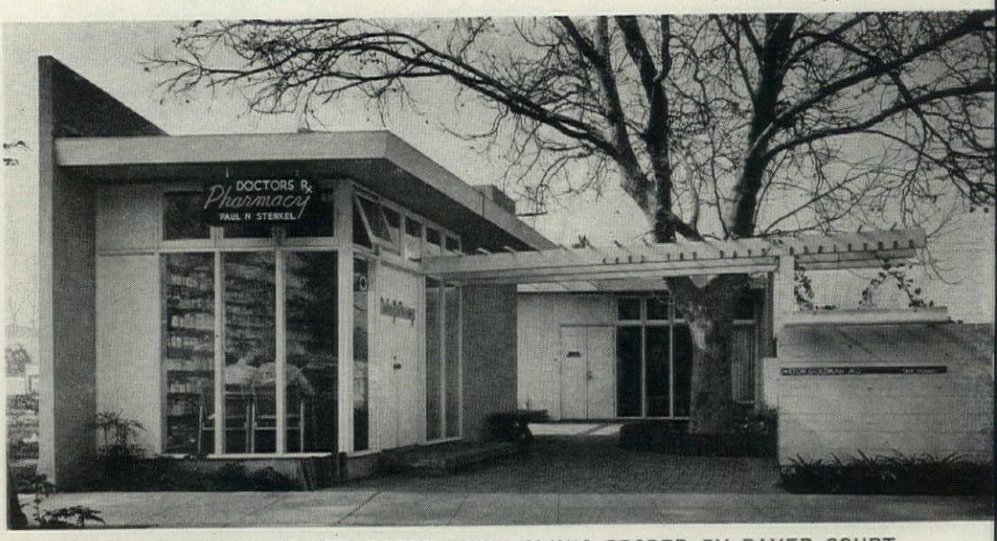
2. One-man office illustrates efficiency of small medical buildings.

WHITNEY R. SMITH, Architect
KERSEY KINSEY CO., Contractors
MILTON GOLDMAN, M.D., Owner

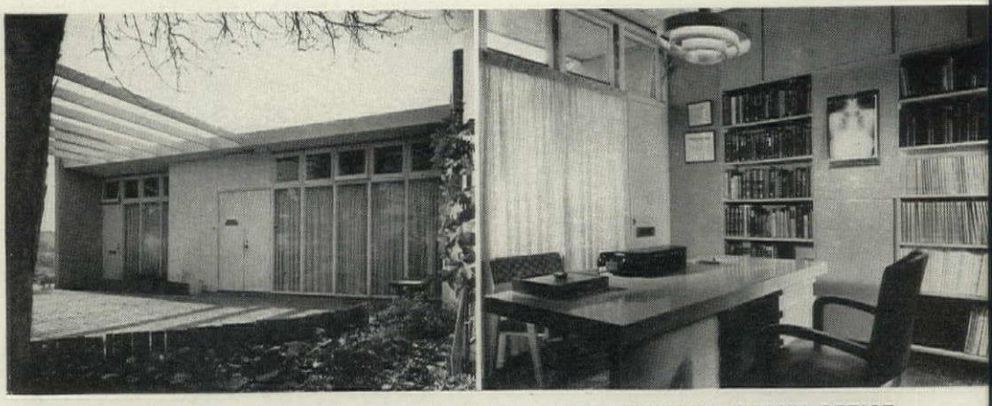
The plan of this California clinic grew out of working deficiencies in the doctor's previous office. The core of the building is his X-ray room—as important to a dermatologist as an operating chamber is to a surgeon. Traffic flows around this central core on every side, leading from the doctor's office and public waiting room at front to rear examination cubicles. The doctor can go directly from room to room on his side of the clinic with complete privacy, while the nurse and incoming patients have equal privacy on their side. Placement of the laboratory next to the reception room saves time and steps for the nurse. In spite of the fact that Dr. Goldman has three times as much space as he did before (and a comparable increase in patients), one secretary-nurse is able to handle the work with greatly increased efficiency—a tribute to the architect's thoughtful planning. Cost: $29,000.



Julius Shulman, photos

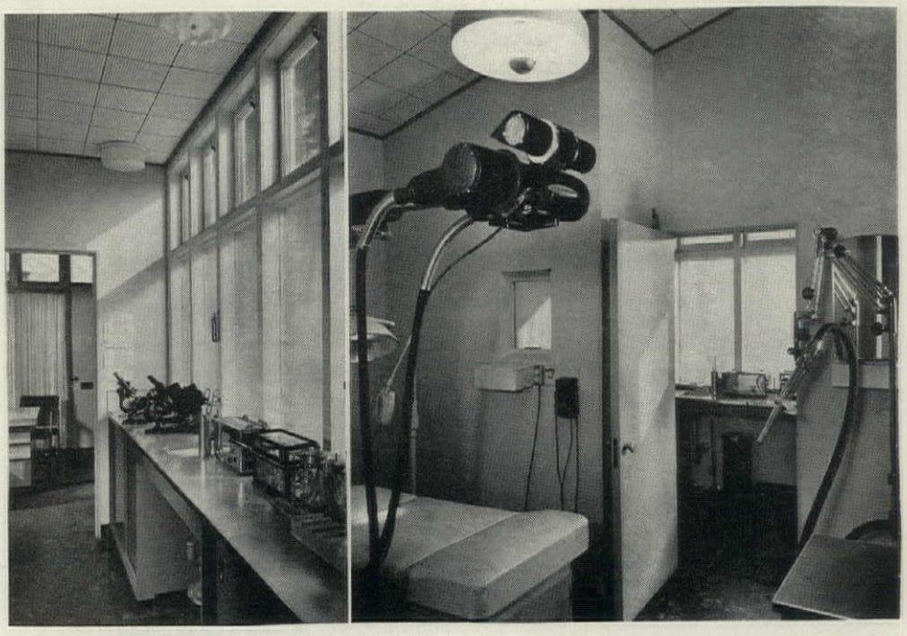


PHARMACY AT STREET IS SEPARATED FROM CLINIC PROPER BY PAVED COURT



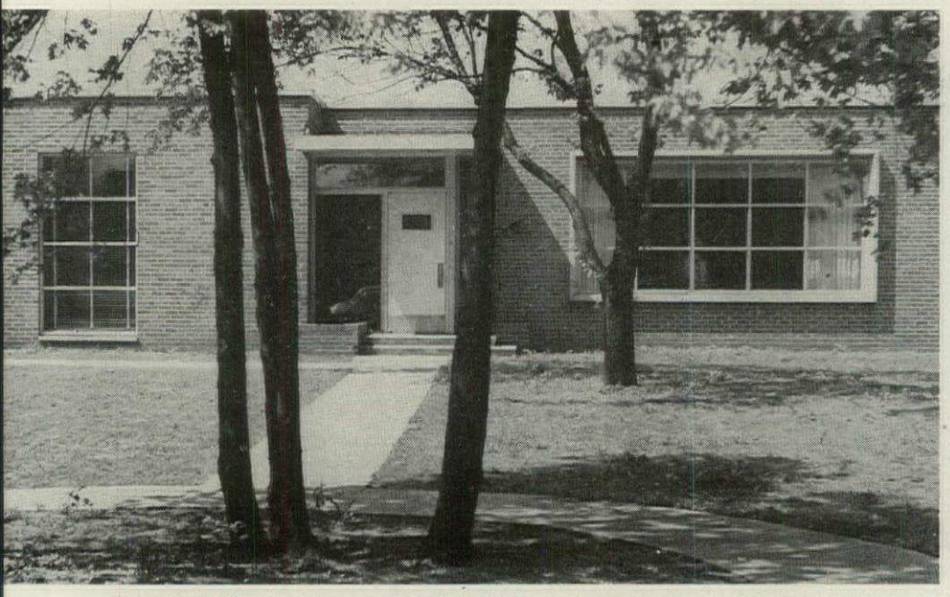
DOCTOR'S PRIVATE ENTRANCE LEADS DIRECTLY INTO SPACIOUS, SUNNY OFFICE

LABORATORY WHICH SERVES AS DOCTOR'S CORRIDOR AND (RIGHT) X-RAY ROOM



CONSTRUCTION OUTLINE: Interior partitions—plaster board and 2 coat plaster. X-Ray room—Ray-Proof lath, with lead sheets against the studs, Ray-Proof Corp. Floors—asphalt tile, Armstrong Cork Co. Ceilings—Acousti-Celotex, Celotex Corp. ROOFING—Pioneer built-up, Flintkote Co. WINDOWS: Sash—pine fixed or Universal transom type, Universal Corp. Glass—Blue Ridge Glass Corp. HARDWARE—Schlage Lock Co. and Kirsch Co. ELECTRICAL INSTALLATION: Switches—Bryant Electric Co. Fixtures—Pryne Co., Inc. PLUMBING FIXTURES—Crane Co. HEATING—Panel Ray Model 10-10 W.P., Day & Night Mfg. Co.

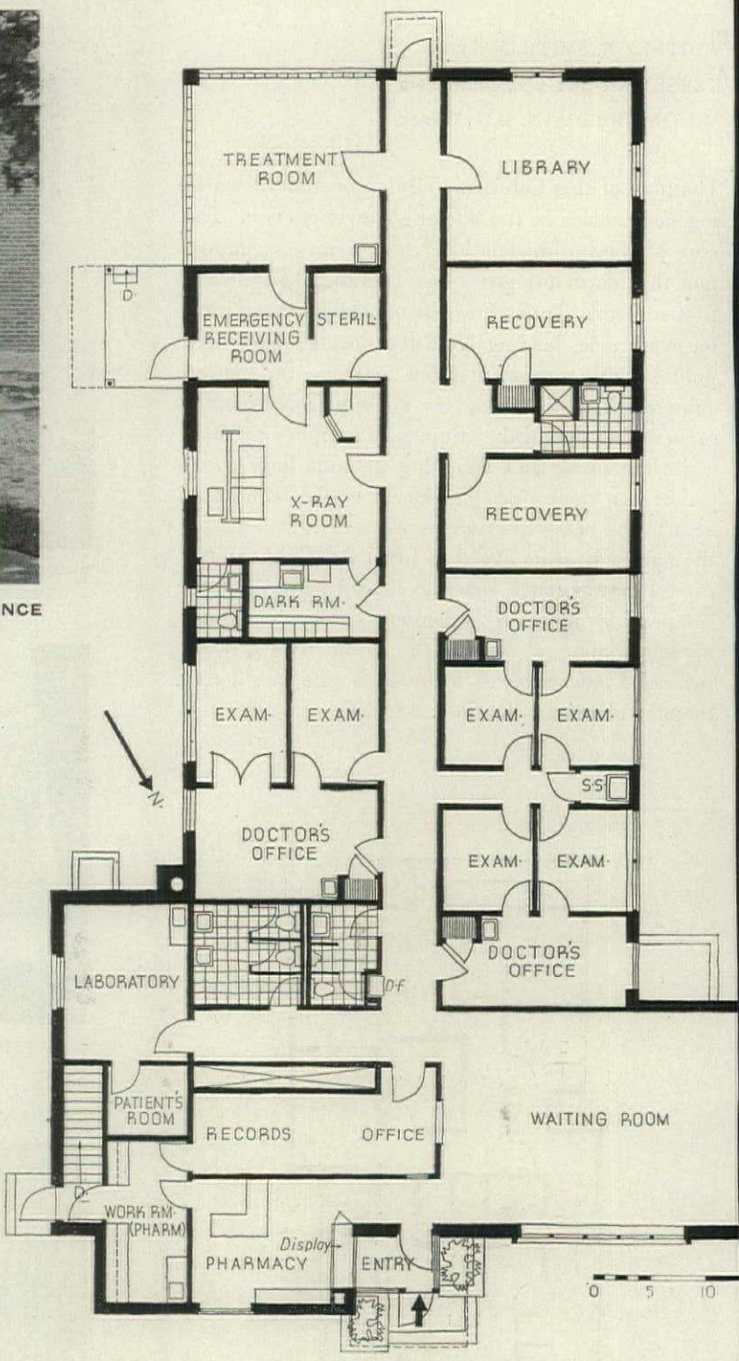
3. A small town gets a diminutive yet efficient substitute for the hospital it cannot afford.



WAITING ROOM AND PHARMACY WINDOWS DRAMATIZE STREET ENTRANCE

MADDEN & CONNOR, Architects
PHILIP G. THOMSEN, M.D., Owner
WILLIAM M. O'BRIEN & SONS CO., Contractor

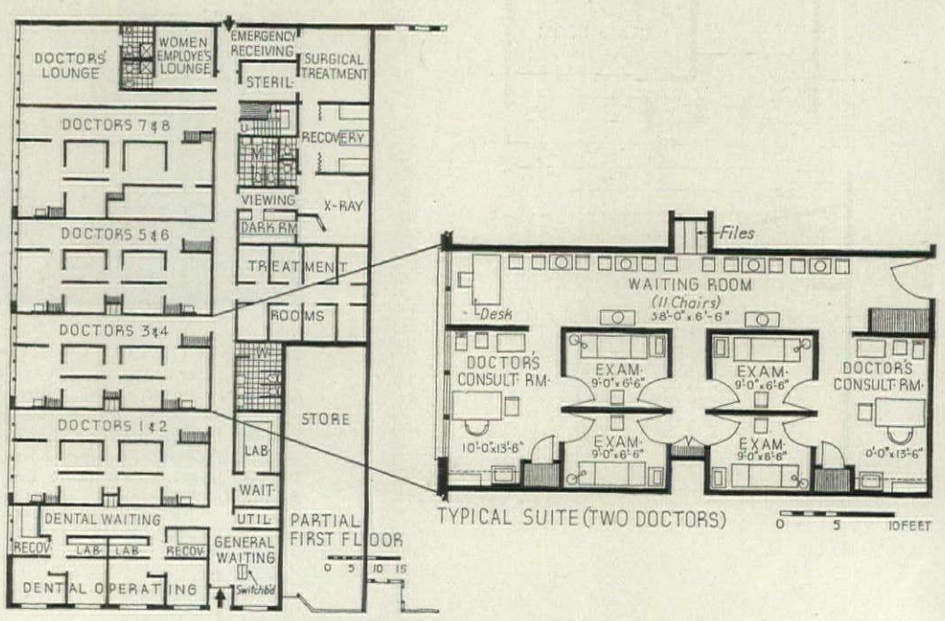
The problem in designing this clinic was to provide complete minor medical service for the village of Dolton, Ill. During the war the local physician-surgeon had had to treat thousands of patients without proper technical equipment—the nearest hospital being ten miles away. The new clinic, with space for two other returning doctors, is equipped to give patients complete care with the exception of major surgery. The layout of the doctors' suites has proved extremely efficient. Only the library is something of a flop. No one has time to use this room and it should perhaps be converted to additional recovery rooms for the extensive minor surgery performed. The building cost $78,000 with radiant heat and air conditioning.



4. Group benefits aid competitive practice.

MADDEN & CONNOR, Architects

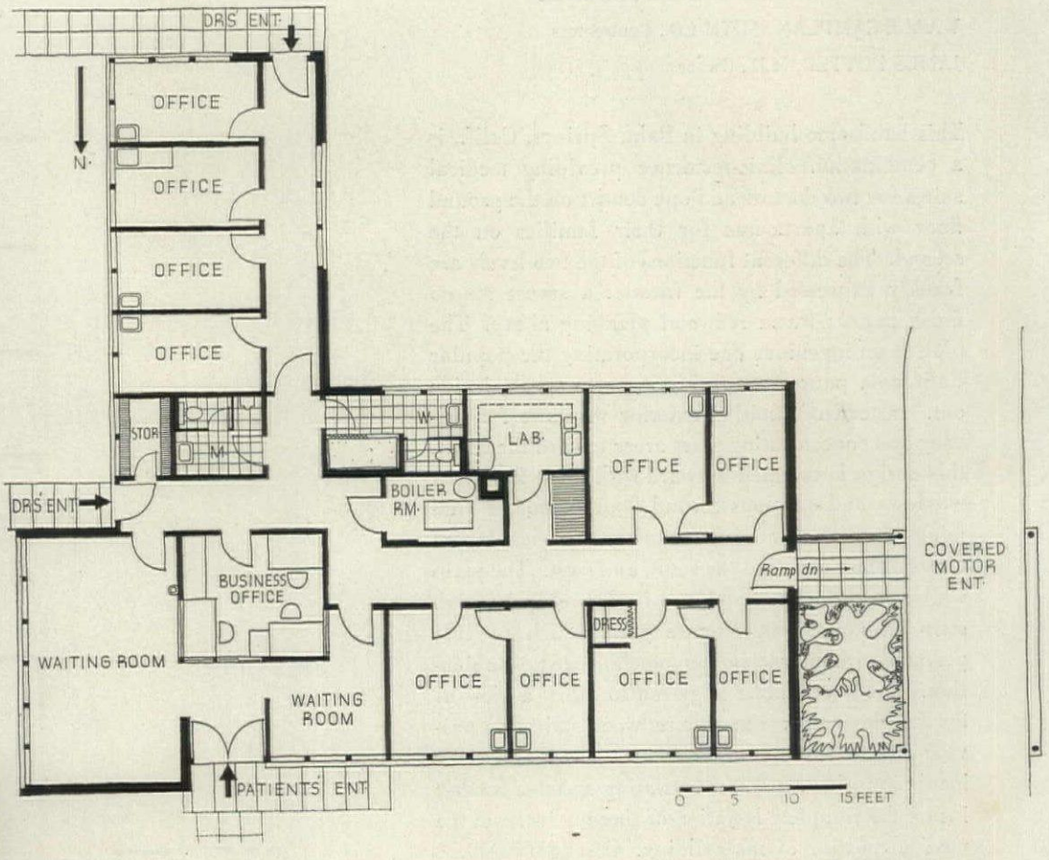
One approach to the problem of coordinating private medical practice is shown here. The building will be erected by an outside promoter and leased to two doctors as managers. They in turn will lease to other local practitioners—in this case six doctors and two dentists. There is no attempt to provide a clinic of cooperating specialists. Instead all eight doctors will be in competition. For this reason they demanded small separate waiting rooms, feeling that patients might do too much shopping around if placed together in one large room. However, to reduce the equipment investment and the number of technical employes, facilities such as X-ray and therapy rooms will be used in common.



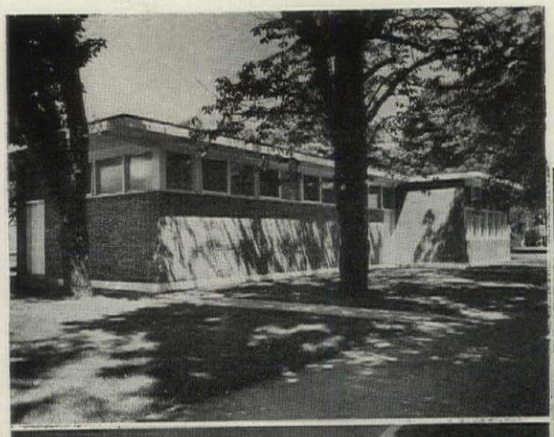
5. Straightforward design marks this small clinic in which five physicians have set up a group practice.

PIETRO BELLUSCHI, Architect
ALLAN A. SIEWERT, Contractor

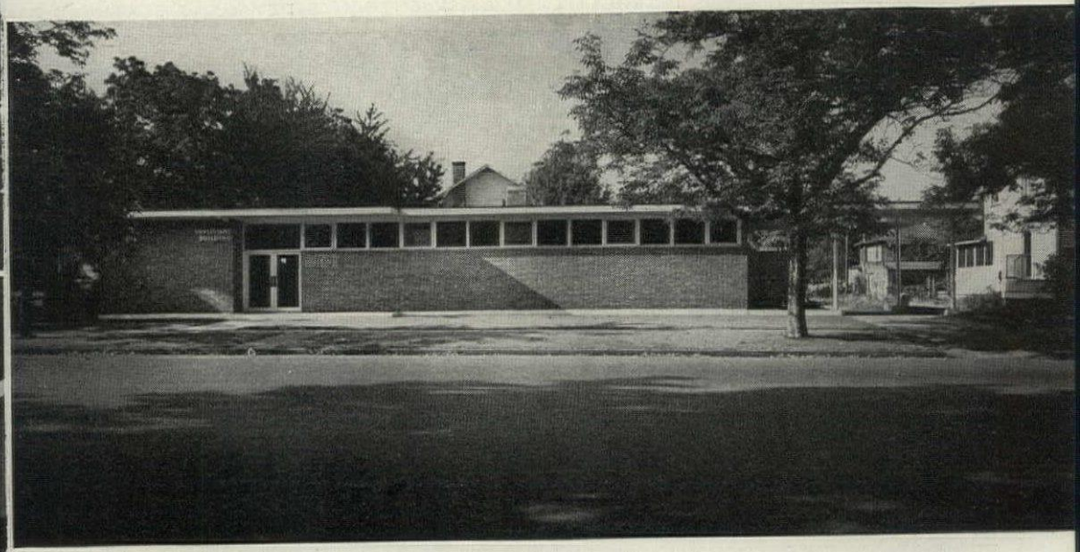
This is one of the few clinics actually devoted to group medicine within the framework of private practice. In other words, the five doctors who occupy its offices are complementary specialists rather than competitors. Special skills represented are obstetrics, gynecology, pediatrics, surgery and internal medicine. Dr. Charles S. Campbell who originated the idea for the center had always been interested in group practice. The postwar shortage of office space provided his incentive. He reports that such a cooperative, suburban clinic was a completely new venture in New Salem, Ore., the typical arrangement (as in most cities) having always been private offices in midtown medical buildings. The main problem was to provide an efficient and attractive design as inexpensively as possible ($55,000). Money was put up by local interests and the clinic turned over to the doctors on a ten-year lease.



P. A. Dearborn







Clerestory windows band the medical area, setting it off from the waiting room section which has windowless side walls and a glazed front. A logical solution, providing privacy where needed, this scheme also results in a trim, clean-cut esthetic.

CONSTRUCTION OUTLINE: Waterproofing—cement primer, Johns-Manville Corp.; Pabco, Paraffine Co.'s Exterior walls—brick veneer; inside—wood sheathing, studs, lath and plaster, U. S. Gypsum Co. Floors—concrete. ROOFING—built-up. INSULATION—Zonolite Insulation Co., Johns-Manville Corp. and U. S. Gypsum Co. WINDOWS: Sash—Whitco awning, Vincent Whitney Co. Glass—Libbey-Owens-Ford Glass Co. and Pittsburgh Plate Glass Co. FLOOR COVERINGS—Armstrong Cork Co. and John-Manville Corp. HARDWARE—P. & F. Corbin, Stanley Works and Vincent Whitney Co. PAINTS—W. P. Fuller Co., General Paint Corp. and Sherwin-Williams Co. ELECTRICAL INSTALLATION: Wiring—metallic tubing. Switches—Harvey Hubbell, Inc. PLUMBING FIXTURES—Crane Co. HEATING—hot water panel system, ⅜ in. copper tubing imbedded in ceiling plaster. Pumps—Trane Co. Water feeder—Bell & Gossett Co. Water heater—Crane Co.

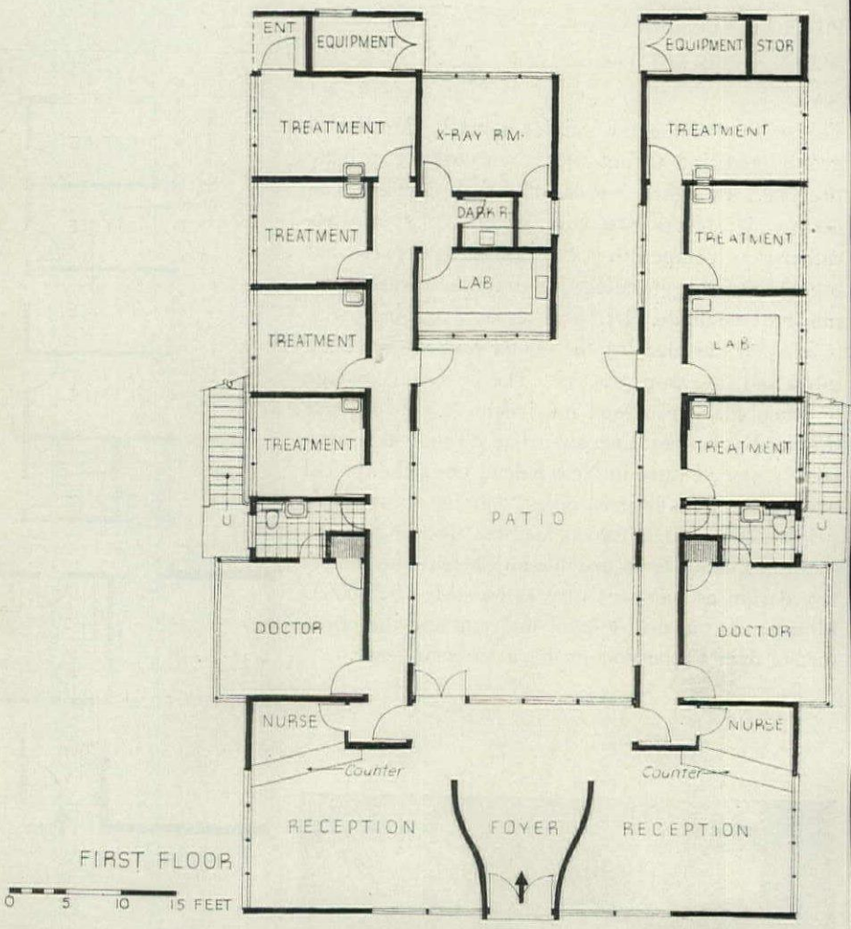
6. Expert planning ties clinic and apartments into unified design yet keeps them mechanically separate.

HARRY J., STEWART AND
ROGER WILLIAMS ASSOCIATES, Architects

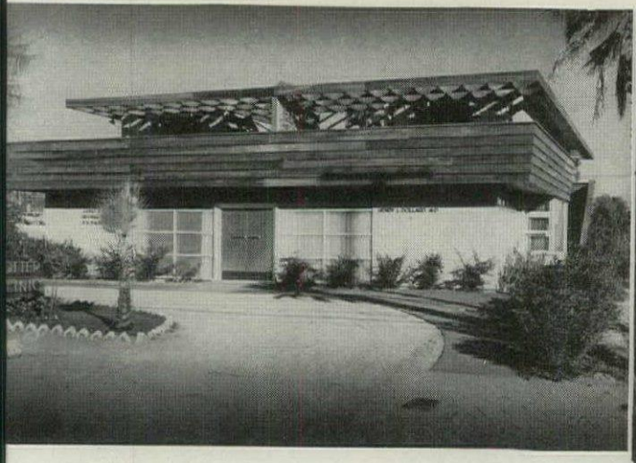
WAALE-CAMPLAN-SMITH CO., Contractors

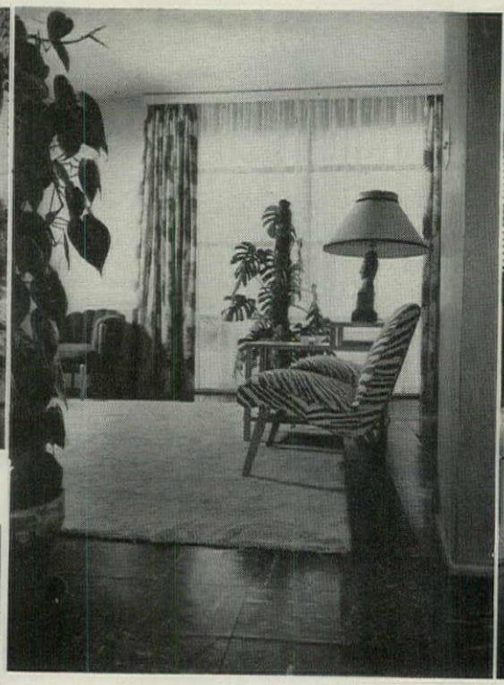
JAMES POTTER, M.D., Owner

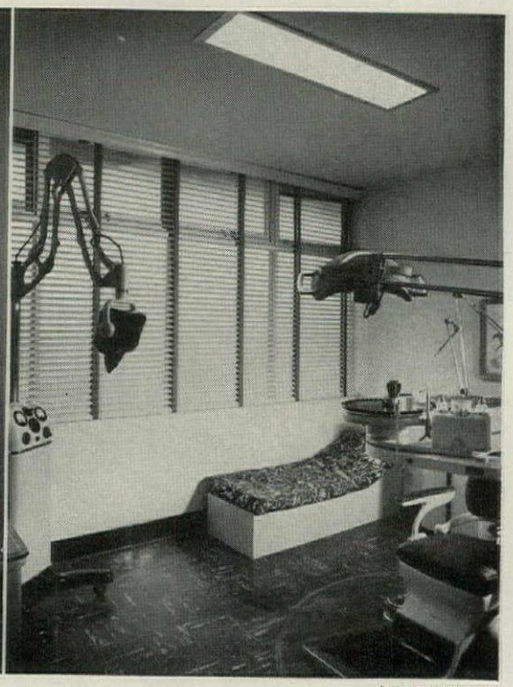
This handsome building in Palm Springs, Calif., is a combination clinic-residence providing medical suites for two doctors and one dentist on the ground floor with apartments for their families on the second. The different functions of the two levels are frankly expressed by the facade: a severe stucco finish below; warm redwood planking above. The plan is an ingenious one incorporating the popular California patio but turning it, so to speak, inside out. Instead of limiting exterior windows for privacy and concentrating glass areas toward the court, this design is oriented outward with large first floor windows and spacious second floor balconies rimming the exterior and commanding magnificent views of mountains to the south and west. The patio walls, on the other hand, are broken only by high strip windows with obscure glass which provide privacy without sacrificing much-needed illumination. The foyer alone is glazed to allow a view of the interior court. Exterior redwood stairways provide private access to each apartment and floor insulation plus separate ventilating systems further insure the complete isolation of these units from the medical portion of the building. Cost: $105,000.



STREET APPROACH GAINS INTEREST FROM CRISP ENTRANCE DETAILING TEXTURED BALCONY. RECEPTION AND DENTIST'S OFFICE BELOW

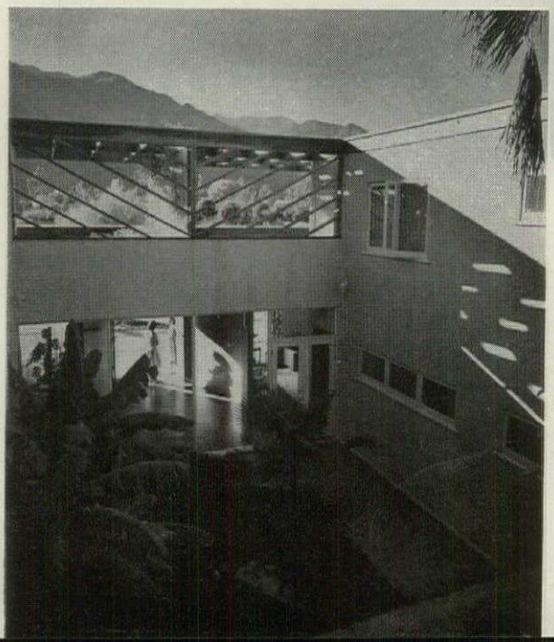




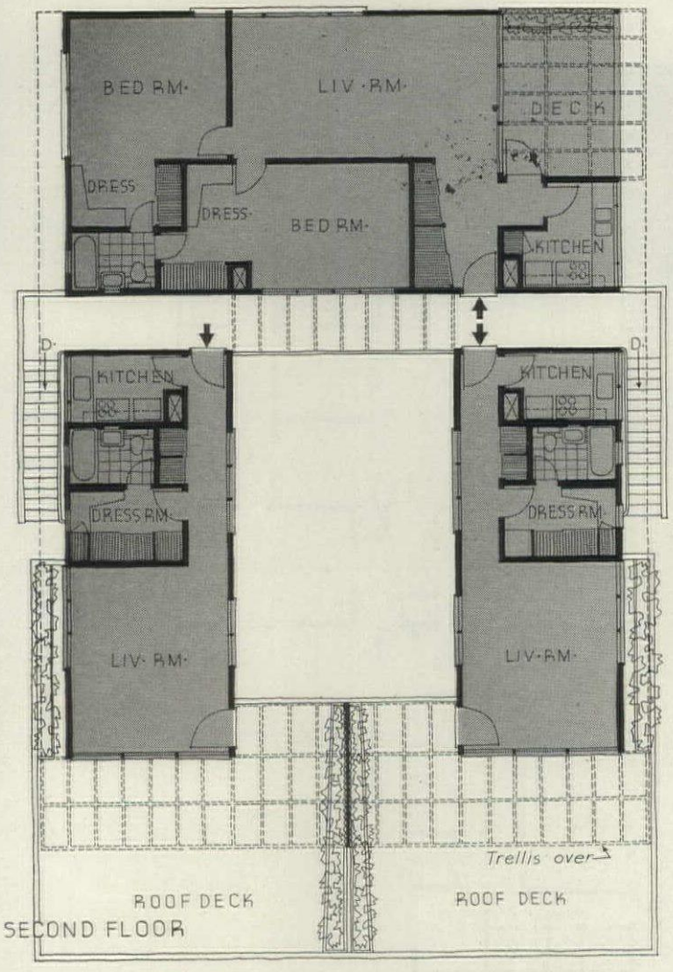


Julius Shulman

PATIO LOOKING TOWARD THE FRONT BALCONY



CONSTRUCTION OUTLINE: Exterior walls—wood studs, stucco or redwood. FLOORS: concrete; wood joists and plywood, Harbor Plywood Corp. ROOFING—composition, Pabco, Paraffine Co.'s. SHEET METAL WORK: flashing and ducts—aluminum, Aluminum Co. of America. Gutters—copper, Chase Brass & Copper Co. INSULATION: Walls and roofs—mineral wool batts, U. S. Gypsum Co. Glass—Libbey-Owens-Ford Glass Co. FLOOR COVERINGS—asphalt tile, Armstrong Cork Co. WALL COVERINGS—plaster, U. S. Gypsum Co.; Flexwood, U. S. Plywood Corp. HARDWARE—bronze, Schlage Lock Co. PAINTS—Dutch Boy, National Lead Co.; Bondex, Reardon Co., Breinig Bros. LIGHTING FIXTURES—Kurt Versen. PLUMBING FIXTURES—American Radiator Standard Sanitary Corp. KITCHEN EQUIPMENT—metal cabinets and ranges, Hotpoint, Inc. Refrigerator, Frigidaire Div., General Motors Corp. HEATING: Electric heaters, Thermador Electrical Mfg. Co. AIR CONDITIONING: Evaporative Cooling System, Utility Appliance Corp. SPECIAL EQUIPMENT: Webster Electric Co. "Teletalk" Intercommunicating System.



INDOOR-OUTDOOR LIVING IS AT SECOND FLOOR LEVEL





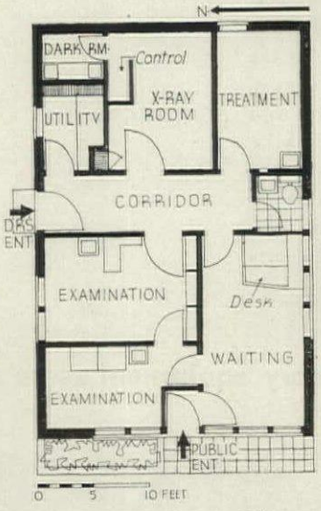




7. Striking window entrance dramatizes small clinic.

Photography Inc.





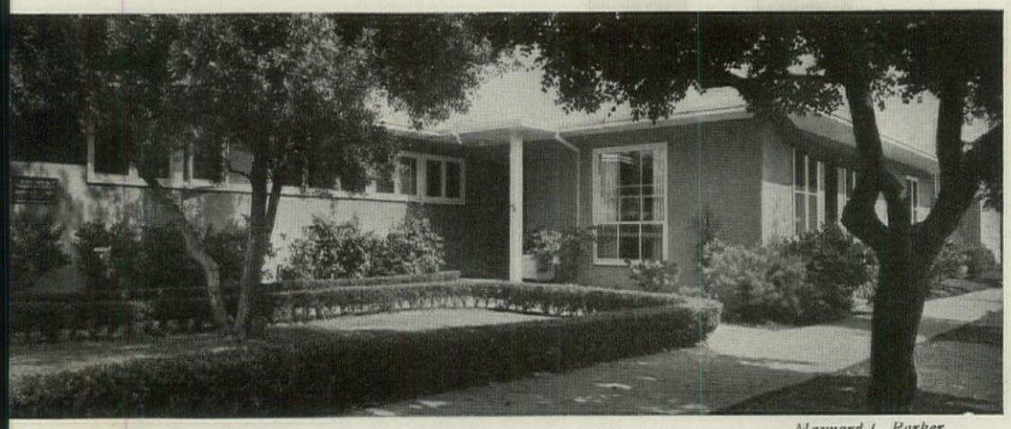


LONG & THORSHOV, INC., Architects
RALPH D. THOMAS & ASSOCIATES, Engineers
H. M. JUERGENS, M.D., Owner

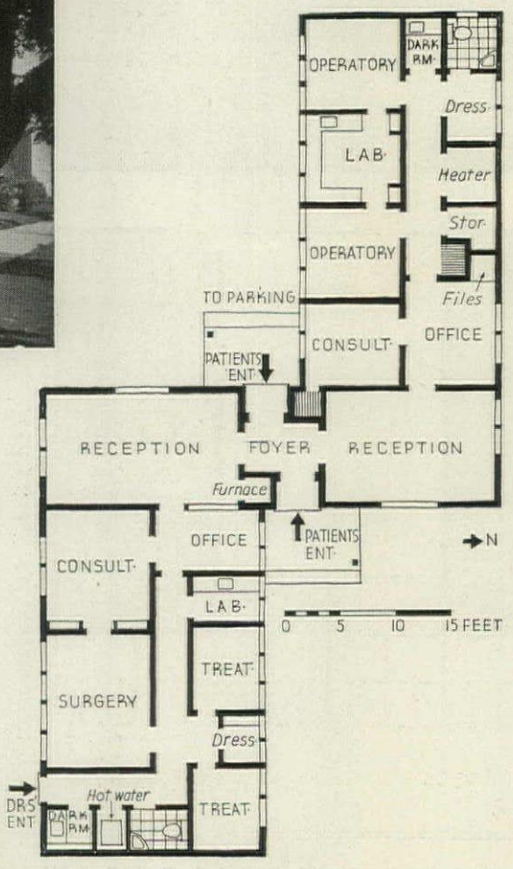
The smallest and least costly ($15,000) of the recent clinics is this tiny, trim office in Belle Plaine, Minn. Original sketches contemplated a much larger building, but the necessity of keeping within a tight budget gradually chipped away the size. Despite shrinking space limits, the architects have managed to provide ample examination and treatment areas—although the doctor-owner feels that the waiting room is somewhat cramped. Circulation, radiating from a small, central island of storage units, is extremely free. The clinic is located in a residential section and, with its clean-cut rectangular lines, is quite an attention-getter among comfortable clapboard neighbors.

CONSTRUCTION OUTLINE: Exterior walls—brick veneer, sheathing, wood studs, 2 in. blanket insulation, plaster on plaster board. Floors—5 in. slab on crushed rock. SHEET METAL WORK: Gutters—galvanized iron. INSULATION: Roofs—4 in. batts. SOUND INSULATION: Ceilings—½ in. acoustical tile—National Gypsum Co. WINDOWS: Sash—wood, fixed, and double hung. Glass: double strength, quality A and obscure—Pittsburgh Plate Glass Co. Weatherstripping—metal, Reese Weatherstrip Co. FLOOR COVERINGS—Kentile, David E. Kennedy, Inc. FURNISHINGS—built-in, natural oak, Hans Knoll Associates. HARDWARE—Schlage Lock Co. LIGHTING FIXTURES—Kurt Versen and Charles A. Anderson. PLUMBING FIXTURES—Kohler Co. HEATING—radiant floor panel, hot water system. Boiler: U. S. Radiator Corp.

8. Offset plan for a two-man clinic gives each one a private unit with a maximum of windows.



Maynard L. Parker

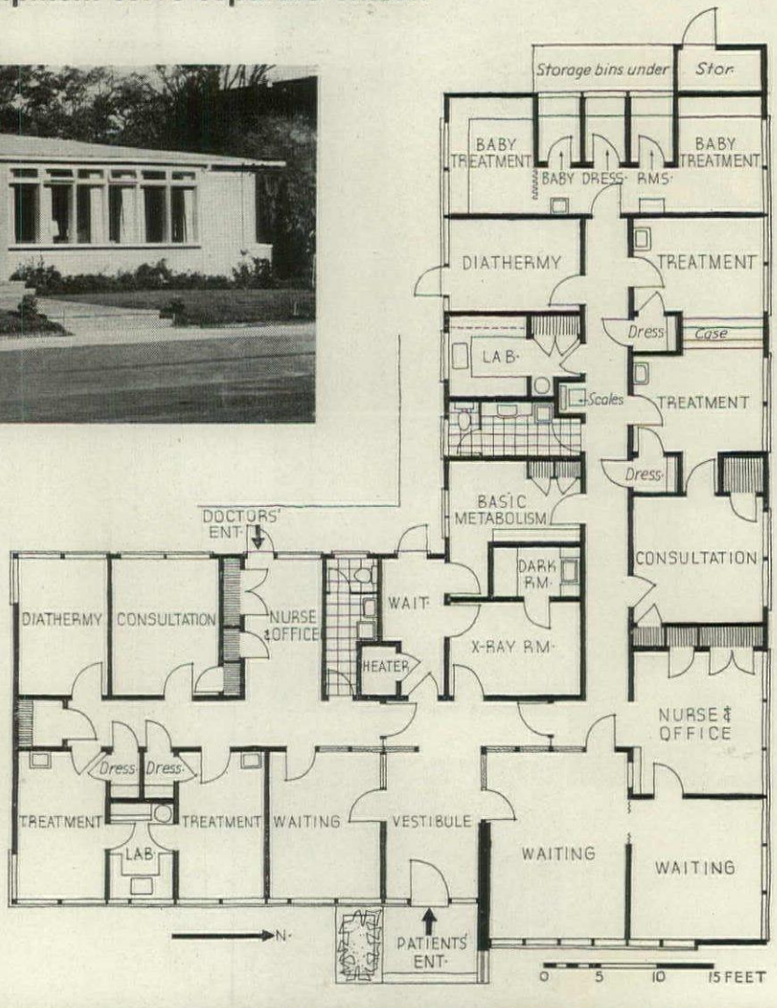


H. ROY KELLEY, Architect
DOUGLAS WARNER, M.D., Owner

Although the owner of this clinic is a doctor, he built it not for his own office, but as a rental investment. After considering a variety of enterprises—from drugstores to filling stations—he hit upon the small clinic as best suited to the Pasadena residential neighborhood where he owned a lot. The building was tailored to fit the needs of its future tenants, a surgeon and a dentist. North light and a large number of small rooms with outside exposures were prerequisites for each. The solution: two distinct units with four exposures connected only at the central vestibule. The entrance can be approached from both the street and the rear parking area. This offset plan also gave space for two planted courts at front and rear.

9. Common X-ray and laboratory equipment serve separate offices.





ANDERSON & SIMONDS, Architects
CLIFFORD L. FEILER, M.D., Owner

The doctor-owner of this suburban San Francisco clinic occupies the larger suite of offices and rents the smaller one. The problem was to arrange rooms so that the stream of patients could be orderly and rapid. For instance, to avoid tying up treatment rooms the pediatric section has special dressing rooms for babies. Flow of patients is three times as fast as in the doctor's old office and one receptionist-nurse can control both waiting rooms plus outgoing patients. The clinic cost $37,000 and the income suite rents for $200 per month.

HOUSE IN FLORIDA

RUDOLPH & TWITCHELL, Architects
ASSOCIATED BUILDERS, INC., Contractors
LOCATION: SARASOTA

"... Our desire in this design was to make unmistakably clear how each member is joined to its neighbor."

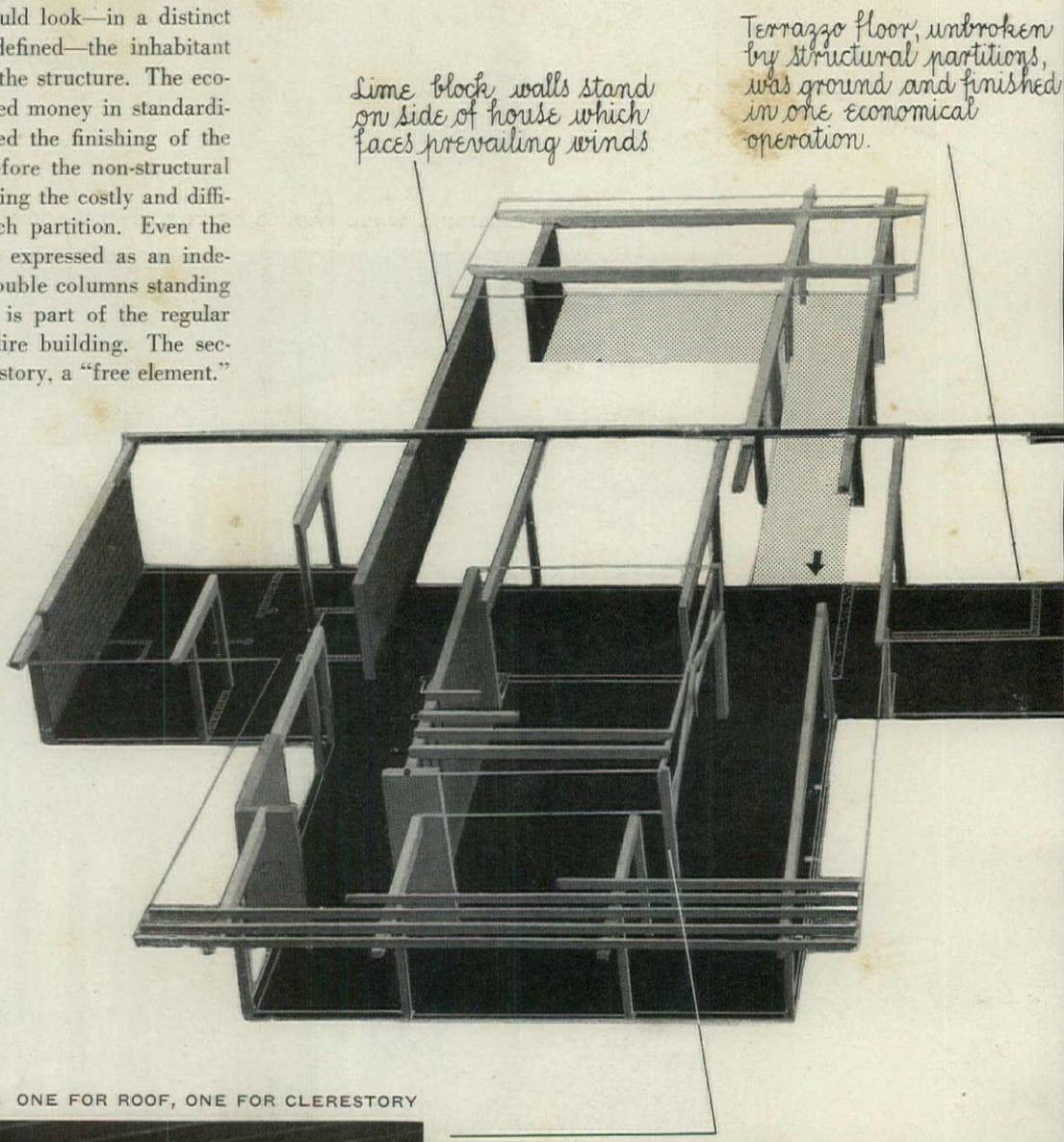
A VIEW PAST THE SLIDING WALL PANELS OF THE LIVING ROOM OUT TOWARD THE BEACH AND GULF



Ezra Stoller: Pictorial Services

A structural module of regularly framed bays is used, but with non-structural partitions

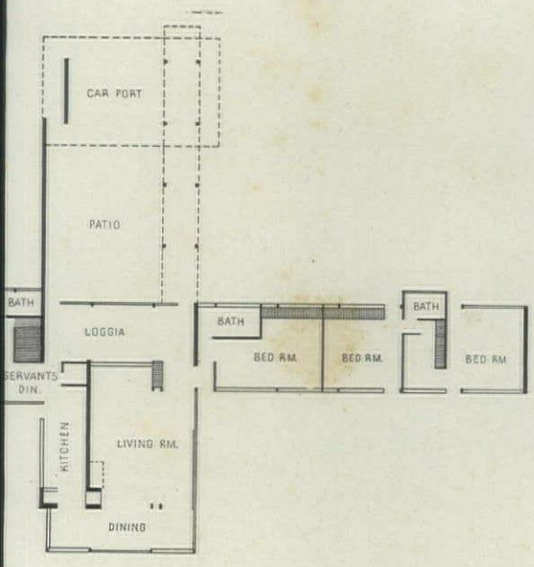
"Our methods are still those of the craftsman to a large extent, whether we like it or not. It must be remembered that we are working in a nonindustrial area—in Florida a piece of steel is a precious item" say the architects of this house. Far from being any sort of apology, the statement is a good beginning for understanding and full appreciation of their conscious effort to make this wood frame house look like a wood frame house—or as a wood frame house should look—in a distinct Florida regionalism. All details are defined—the inhabitant of the house is a constant spectator of the structure. The economical 12 ft. bay system not only saved money in standardization of roof timbers, but also allowed the finishing of the terrazzo floor (for sandy, wet feet) before the non-structural partitions were placed, thereby eliminating the costly and difficult procedure of grinding around each partition. Even the clerestory in the living room has been expressed as an independent structural system, leading to double columns standing in that room. One column and beam is part of the regular bay system carried throughout the entire building. The second column's job is to support the clerestory, a "free element."

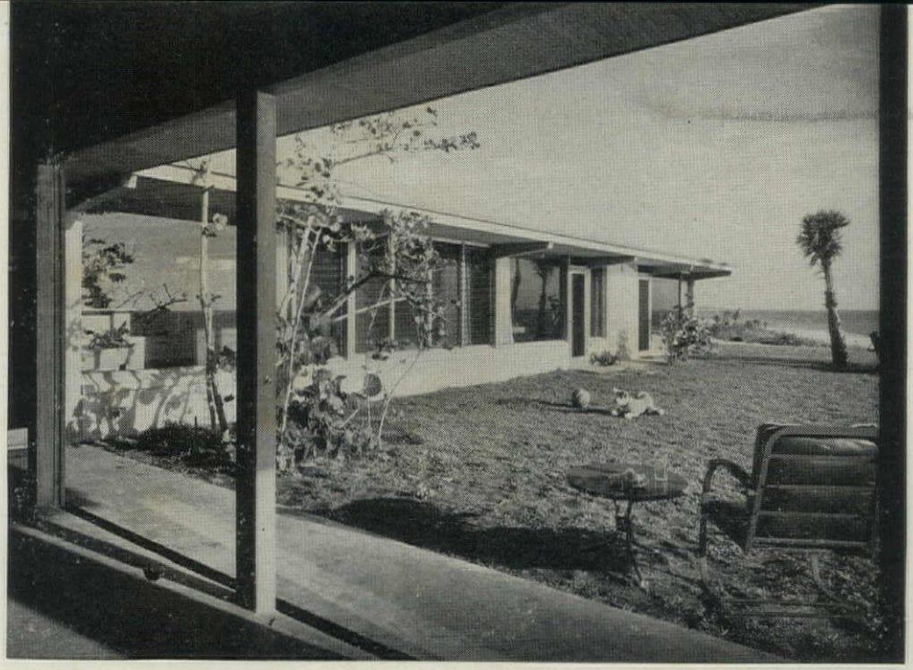


NOTE PAIRED POSTS IN LIVING ROOM, ONE FOR ROOF, ONE FOR CLERESTORY

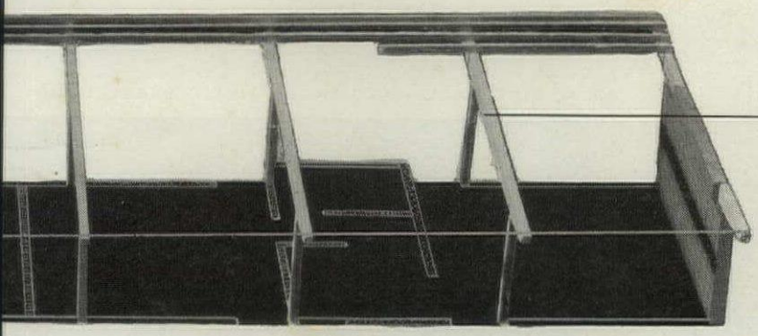


om sizes independent of the module

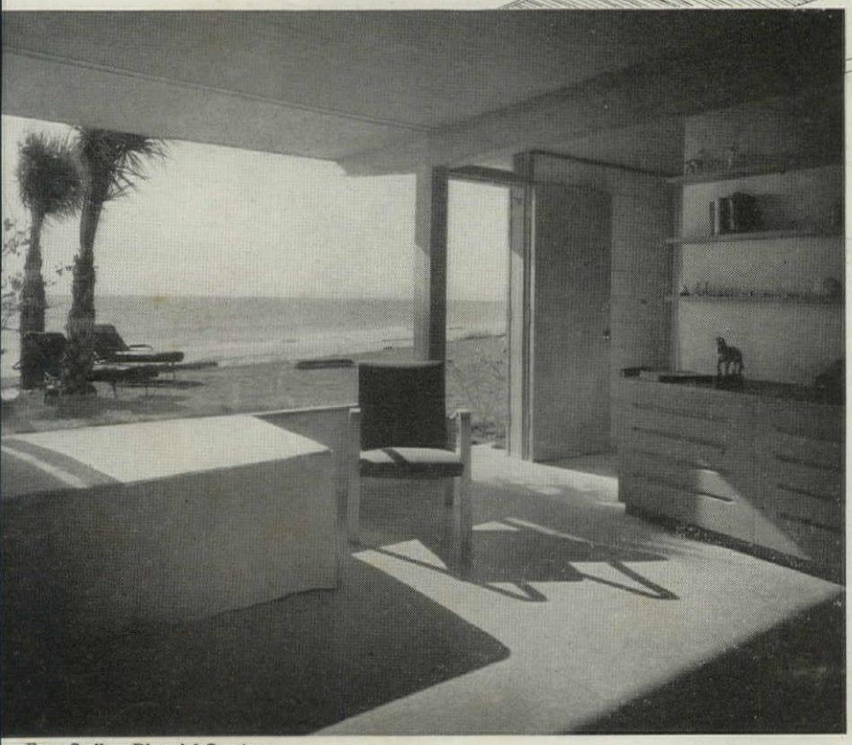




PROJECTING BEAMS UNDER THE LONG OVERHANG MARK BAYS IN BEDROOM WING



Twelve foot bays are the framing element, economizing on roof timbers and eliminating structural partitions



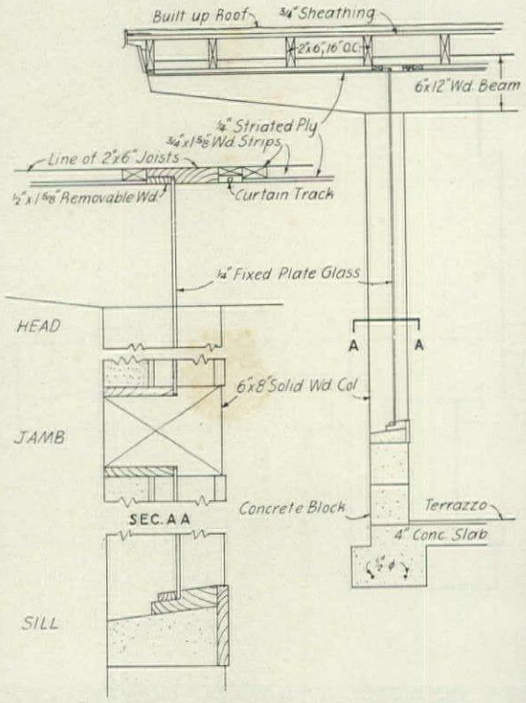
SIMPLE FRAMING CALLS FOR CONTINUOUS 2 x 6's CARRYING THE ROOF ON 6 x 12 BEAMS WHICH REST ON 6 x 8 COLUMNS. STRIATED PLYWOOD CEILING LEAVES HANDSOME BEAMS EXPOSED AND REQUIRES AN EXACTING DETAIL WHERE LARGE GLASS WINDOWS ARE RUN ALL THE WAY TO THE CEILING BETWEEN BEAMS

Ezra Stoller: Pictorial Services

The wood skeleton, lean and spare, helps make the interiors very pleasant in character

All the rooms in this house—built for occupancy six months of the year—have cross ventilation. In the bedroom wing this meant the elimination of a hall in favor of an outdoor walk. which is as pleasant as it is practical in the situation. A long overhang, which was no problem in this framing system, shields the walk from above. Cypress was used extensively, with lime block for solid bearing walls and for those exposures which stand against the prevailing winds.

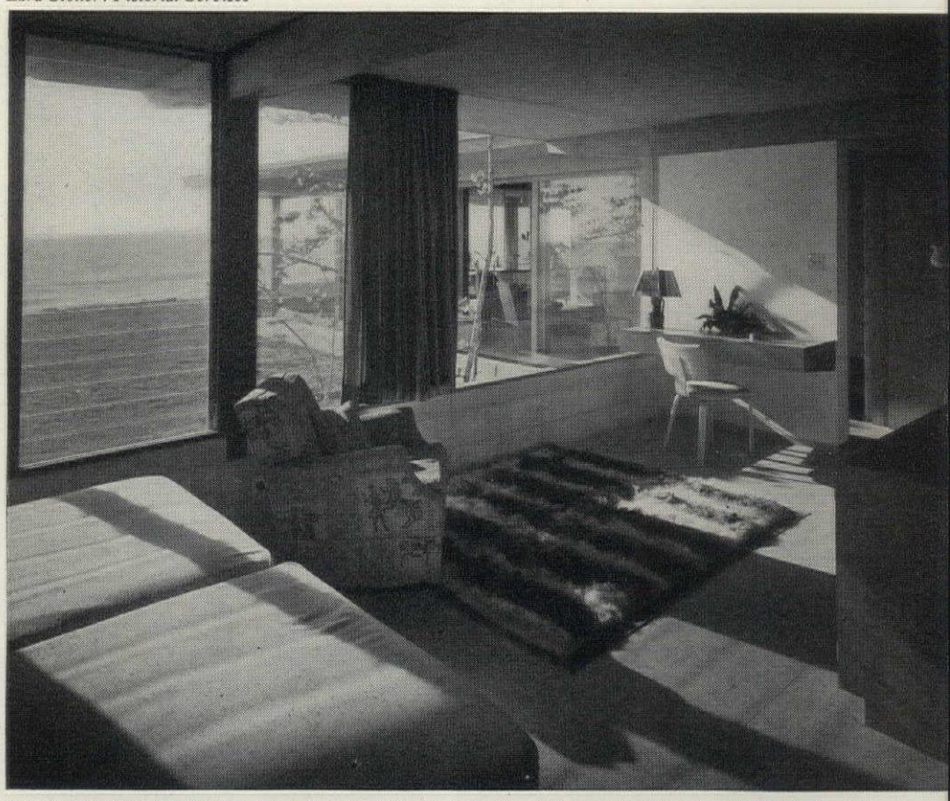
Extensive use of glass is justified by the architects with the explanation that there is not as much sun in Florida as many people believe. "To us what is needed is not less glass but better control of the opening, which we now accomplish by loose-woven fabric curtains, trees, and large-leafed plants and overhangs. We long for a weather-resisting flexible blind which can be used on the outside of the glass to cut down the heat penetration." Glass jalousies are used for ventilation, with careful attention given the detailing of the connection between the jalousies and the fixed glass, so that these members never approach the size of a structural column.



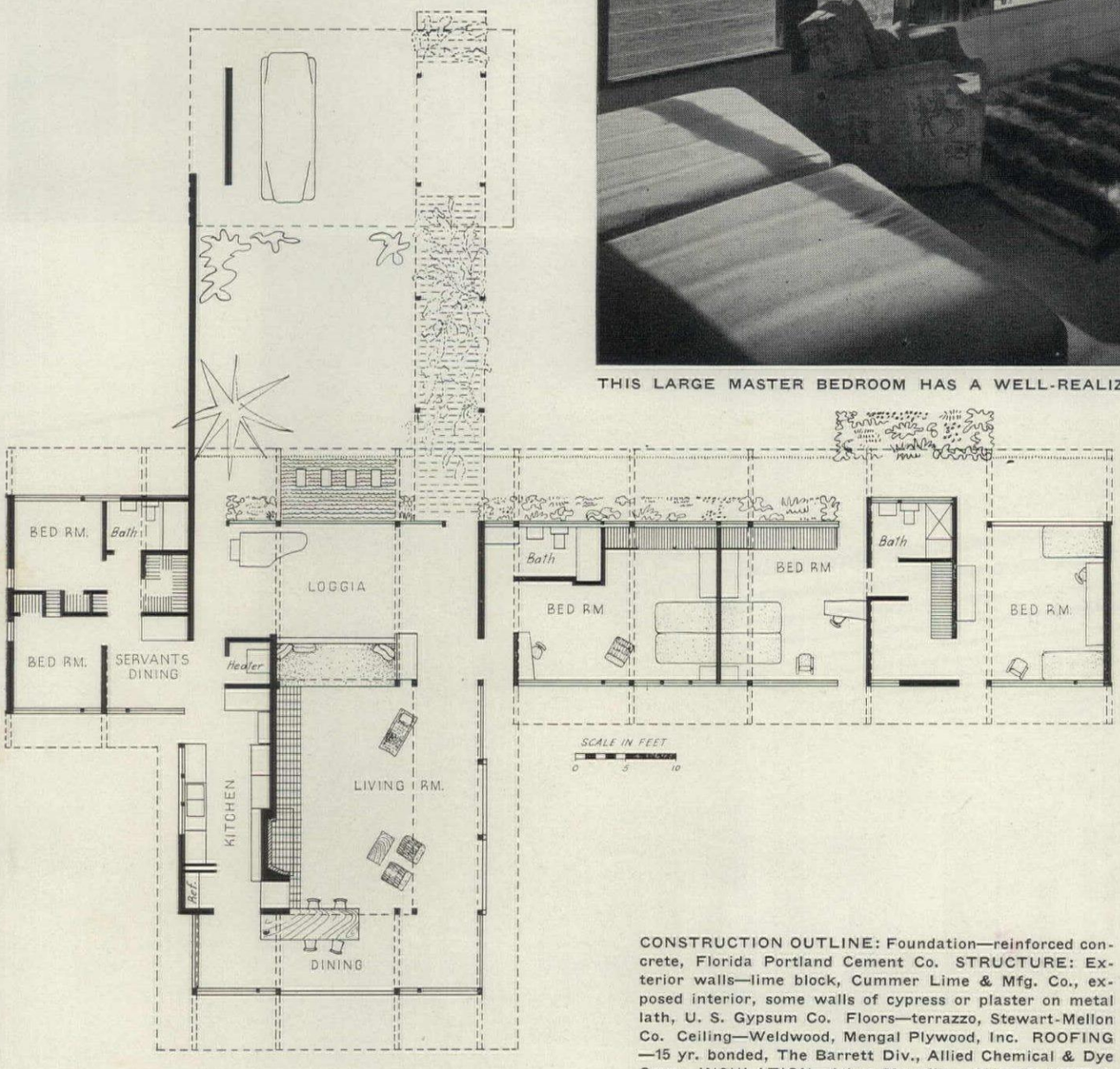
BEAMS OF CLERESTORY CONTRAST WITH STRIATED PLYWOOD CEILING IN LIVING ROOM; FIREPLACE HAS LARGE FORMED STEEL HOOD



Ezra Stoller: Pictorial Services



THIS LARGE MASTER BEDROOM HAS A WELL-REALIZED VIEW OF THE GULF



KITCHEN CEILING IS PLASTERED, FOR EASY CLEANING

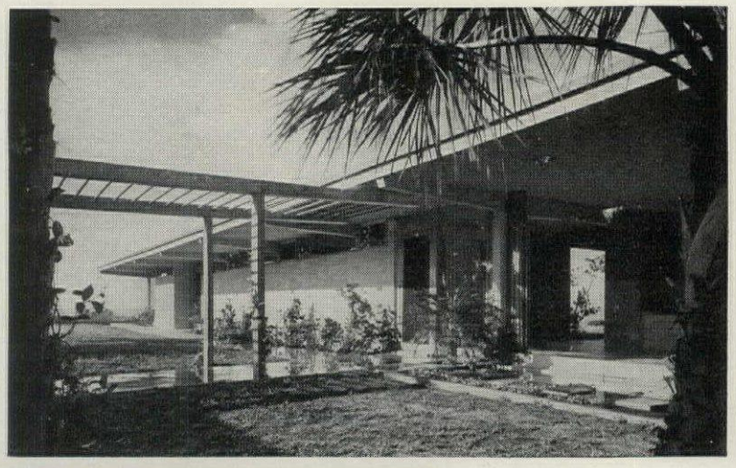


CONSTRUCTION OUTLINE: Foundation—reinforced concrete, Florida Portland Cement Co. STRUCTURE: Exterior walls—lime block, Cummer Lime & Mfg. Co., exposed interior, some walls of cypress or plaster on metal lath, U. S. Gypsum Co. Floors—terrazzo, Stewart-Mellon Co. Ceiling—Weldwood, Mengal Plywood, Inc. ROOFING—15 yr. bonded, The Barrett Div., Allied Chemical & Dye Corp. INSULATION—Johns-Manville. SHEET METAL WORK: Flashing—copper, Revere Copper & Brass Co. Ducts—Alcoa, Aluminum Co. of America. Gravel stop—Armco, American Rolling Mill Co. WINDOWS: Sash—ventilating plate glass jalousies, Pro-Tect-U Jalousie Corp. Glass—Pittsburgh Plate Glass Co. Screens—Lumite, Chicopee Mfg. Corp. PAINTS—O'Brien Corp., Inertol Co., Inc. and Pratt & Lambert, Inc. DOORS—Paine Lumber Co. HARDWARE—Schlage Lock Co. ELECTRICAL INSTALLATION: Wiring—National Electric Products Corp. Switches—Hart & Hegeman Electric Co. Fixtures—Kurt Versen Co., General Lighting Co. and Century Lighting, Inc. KITCHEN EQUIPMENT: Range-Tappan Stove Co. Refrigerator—Servel, Inc. Cabinets—Kitchen Maid Corp. Dishwasher—General Electric Co. LAUNDRY EQUIPMENT: Washing machine—Bendix Home Appliance, Inc. PLUMBING FIXTURES—Kohler Co., Crane Co. Shower—Speakman Co. Cabinets—F. W. Lawson Co. HEATING—Janitrol warm air system, filtering and humidifying, Surface Combustion Co. Grilles—U. S. Register Co. Water heaters—General Electric Co. and Rudd Mfg. Co.

A unique Florida site demanded a regional design, achieved with the aid of native materials

This house is built on Treasure Island, one of the narrower Florida keys. Designed to be kind to children and other members of an overflowing household in winter, and to be suitable for shorter summer stays, it has an exceptional site. The lot is a 200 ft. strip which extends across the slim island from the Gulf of Mexico on one side to the Bayou on the other shore. The house itself is placed on a slight bluff immediately overlooking the Gulf, to take advantage of the sweeping view of a cove and a magnificent beach. Two sliding doors open the living room to a terrace—and this view.

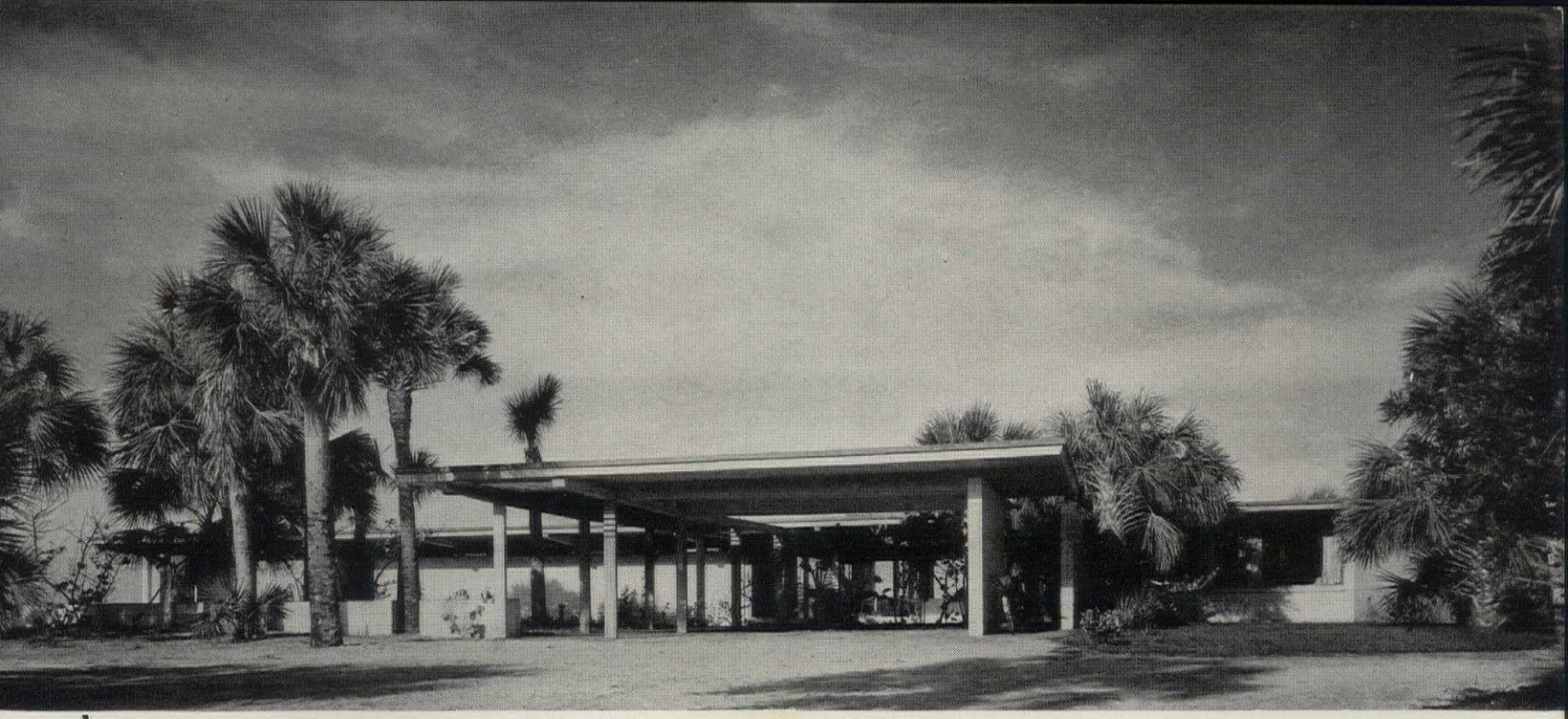
Only disadvantage of the plot is a product of its double-shoreline: a road runs through it. But the architects overcame this in placing the house with the carport facing both the road and prevailing winter winds.

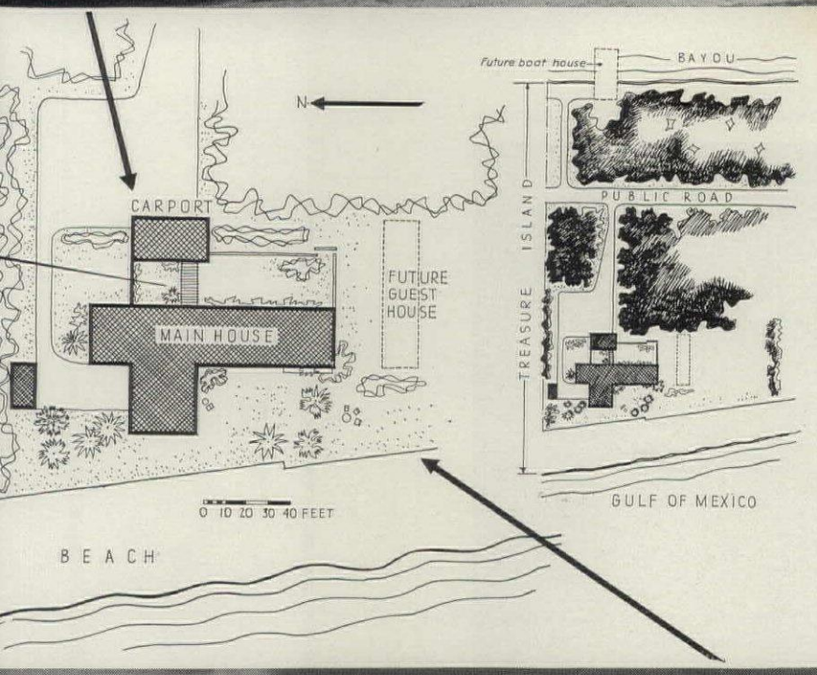


OPENNESS OF THE HOUSE IS APPARENT IN ENTRANCE APPROACH



Ezra Stoller: Pictorial Services





VIEW OF APPROACH INTO BROAD CARPORT; THIS ELEVATION HAS LITTLE GLASS, IS BUTTRESS AGAINST WINTER WINDS

EXPOSURE ON GULF OF MEXICO; USE OF CYPRESS AND GRAY LIME BLOCK HELP IN DEVELOPING STRONG REGIONAL FLAVOR



NEW DESIGNS in furniture and accessories are hospitably displayed in a renovated New York house

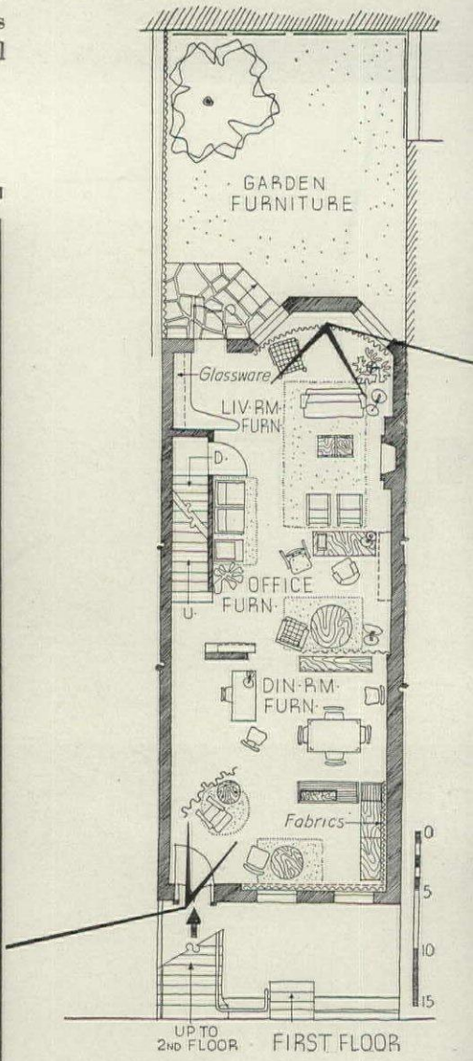
DOROTHY Q. NOYES and ROBERT H. ROSENBERG, Designers

WILLIAM W. BRILL, General Contractor

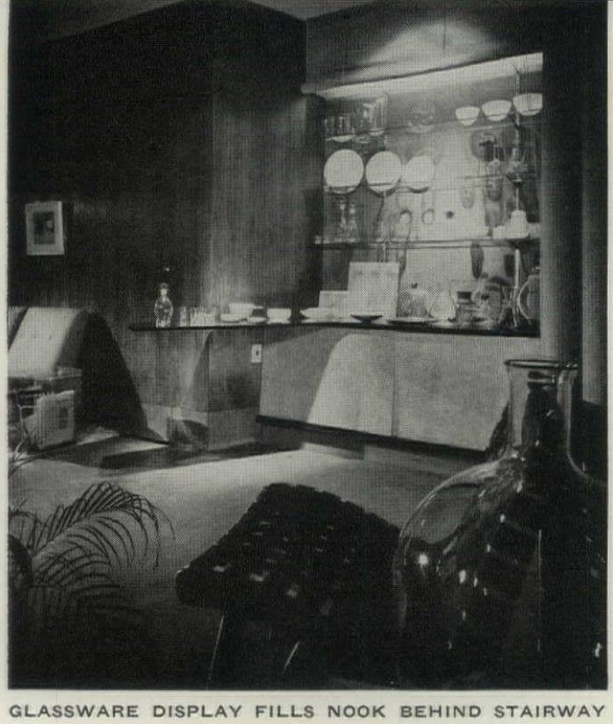
Launched by three women with experience and good taste aplenty, but small capital, this new shop for modern furniture and accessories is now snugly ensconced in the lower two floors of an old Manhattan brownstone. A shortage of store space in the particular district where they wished to locate led them to a vacant house. They rented it on a long-term lease, sublet the three upper floors and then set about refurbishing the rest for their new shop. They knew that most, if not all, of their items would be available elsewhere in the city. But they felt—and their experience seems to prove them right—that having this merchandise grouped together, in one store, would attract a certain type of customer. This customer, in general terms, is young, married, upper middle income; has a bias toward modern; needs some guidance perhaps but avoids chi-chi decorators. What the trio needed for this clientele was proper background and adequate space for a selected line of new designs. Their new quarters provide both handsomely. And they did it at modest expense—due largely to the fact that structural alterations were minor, installation of a new heating plant being the only large expenditure.

AN EIGHTEEN-EIGHTY KITCHEN WAS TRANSFORMED INTO THIS BRIGHT, PLEASANT SALESROOM

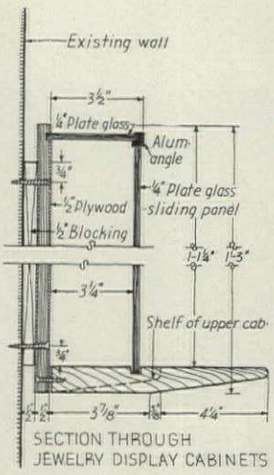




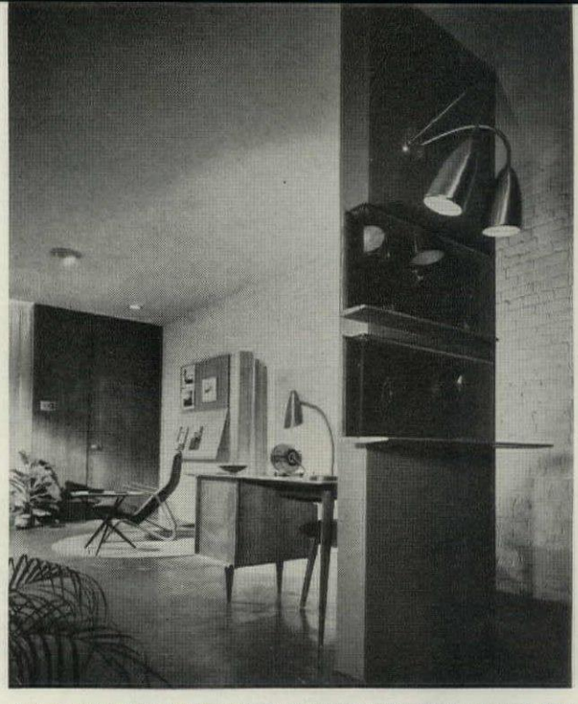
Photos, Ezra Stoller: Pictorial Services



GLASSWARE DISPLAY FILLS NOOK BEHIND STAIRWAY

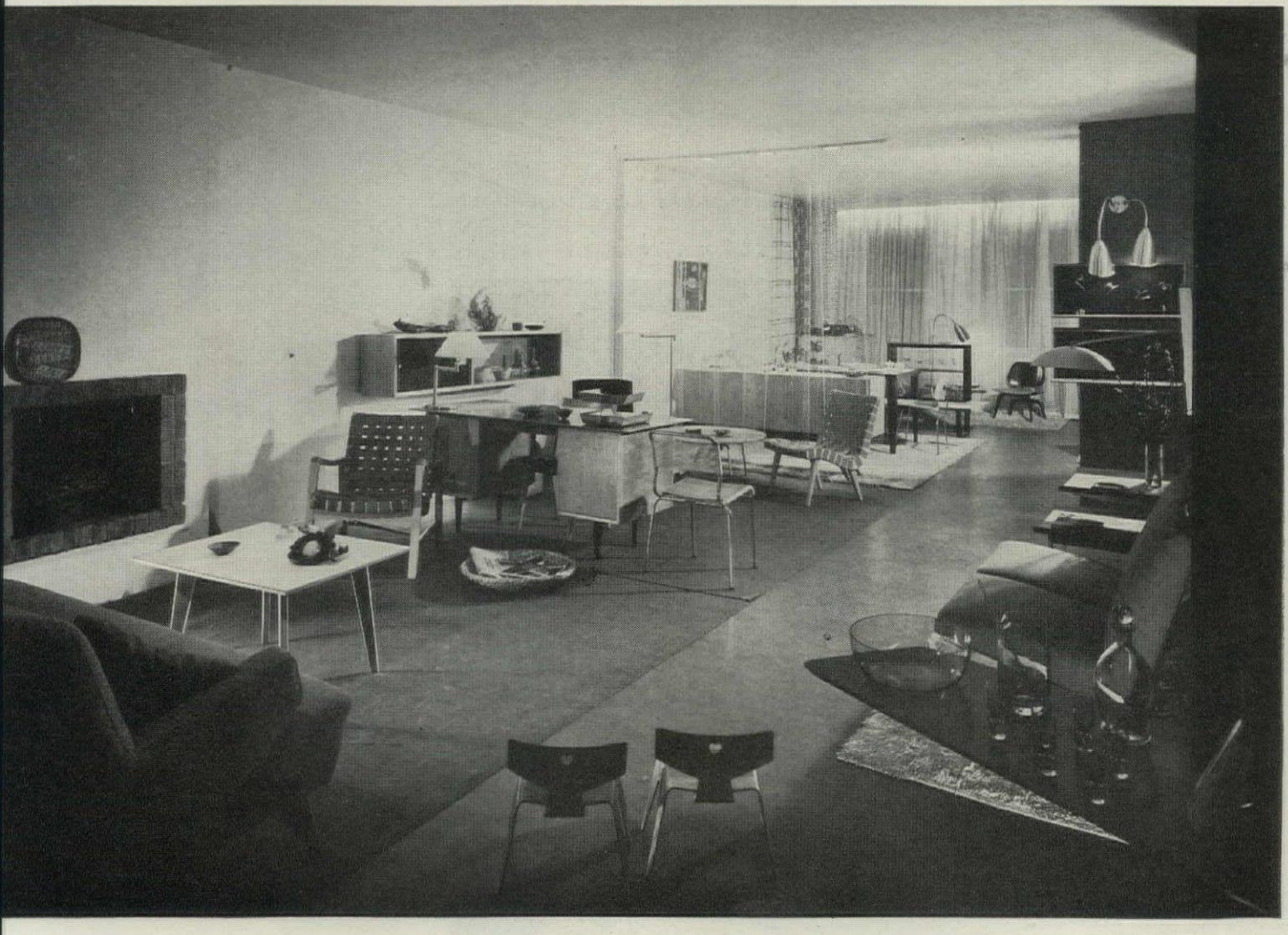


SECTION THROUGH JEWELRY DISPLAY CABINETS



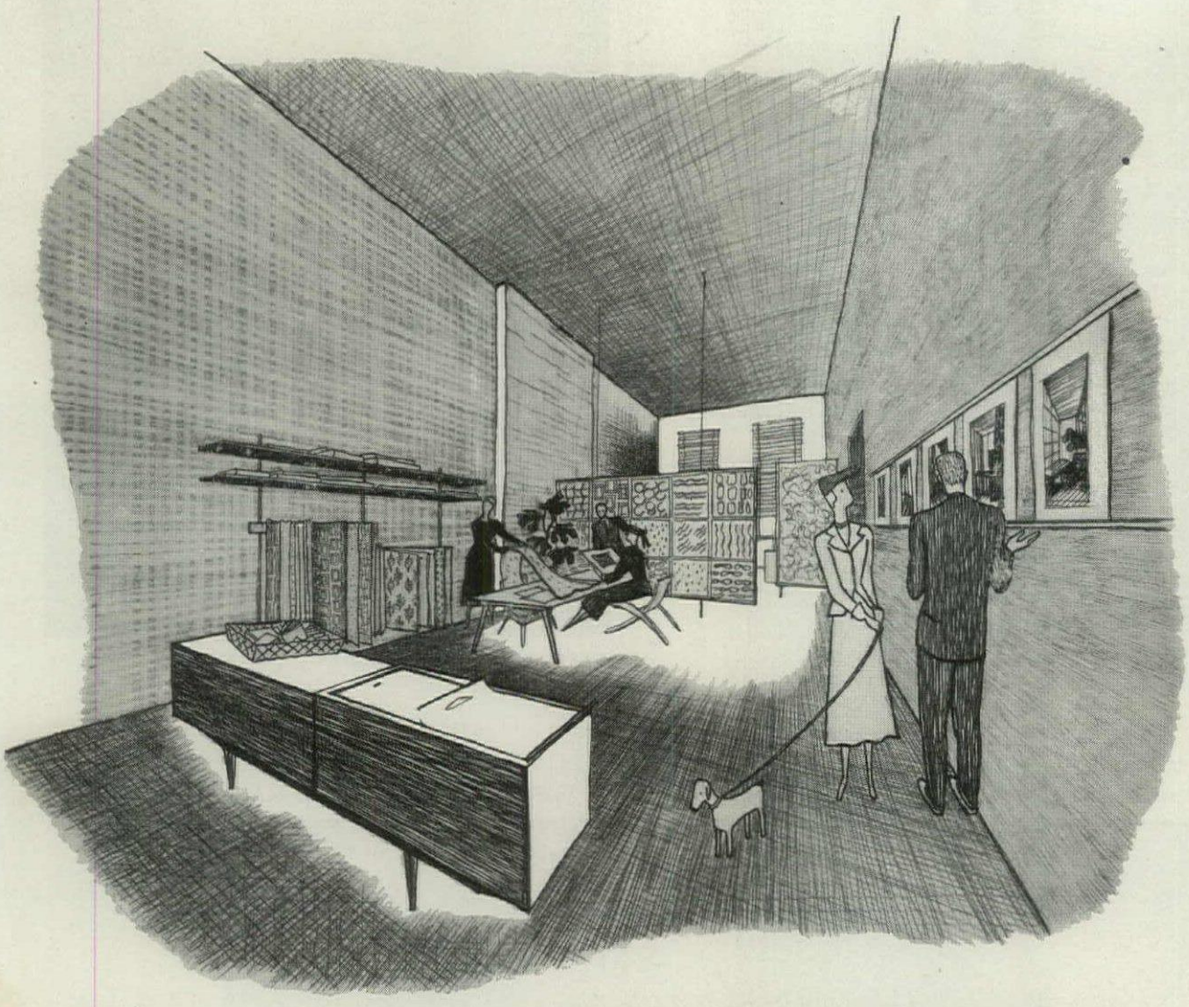
CASE BY ABEL SORENSON SHOWS MODERN JEWELRY

RENOVATED GROUND FLOOR OFFERS PLENTY OF ROOM, FRIENDLY BACKGROUND, FOR WIDE RANGE OF MERCHANDISE

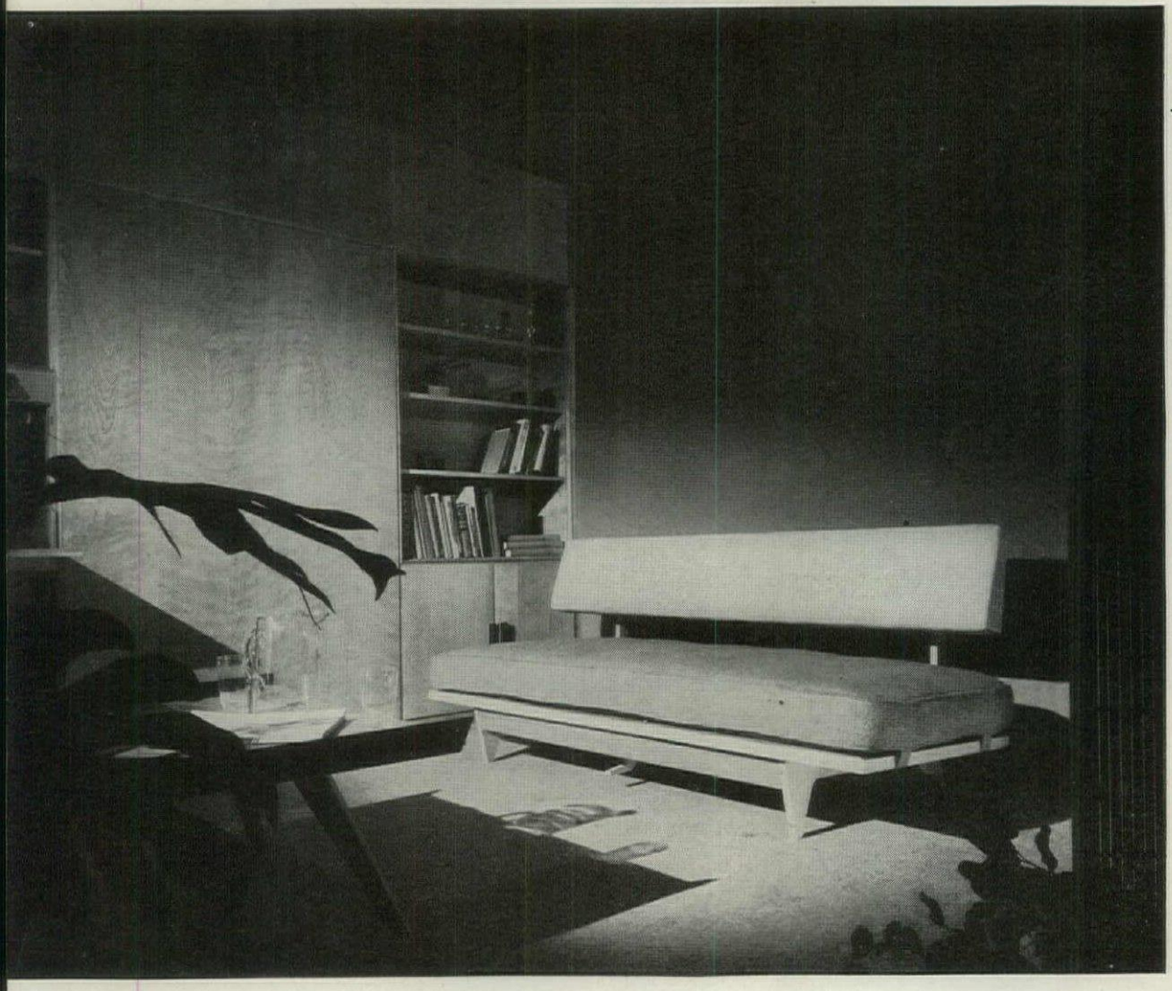


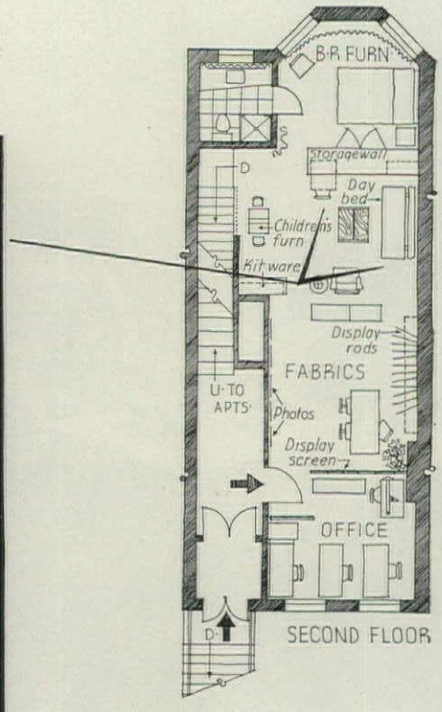
Aside from removing a lot of antiquated plumbing and all non-load-bearing partitions, the transformation of the old kitchen floor was largely a matter of new surfaces. The floors are a reddish-brown oak chip and plastic cement compound, laid on metal lath over the old wood flooring. The walls are of whitewashed brick, white and light gray plaster, walnut plywood and a South Seas grass cloth. Street windows are curtained in sheer white, those of the bay at the rear in chartreuse.

NEW DESIGN, INC.



REMOVING ALL PARTITIONS EXCEPT THOSE AROUND STAIRHALL, DESIGNERS HAVE SUBDIVIDED SECOND FLOOR SALES AREA BY FABRIC DISPLAY SCREEN (ABOVE) AND STORAGE UNITS (BELOW)

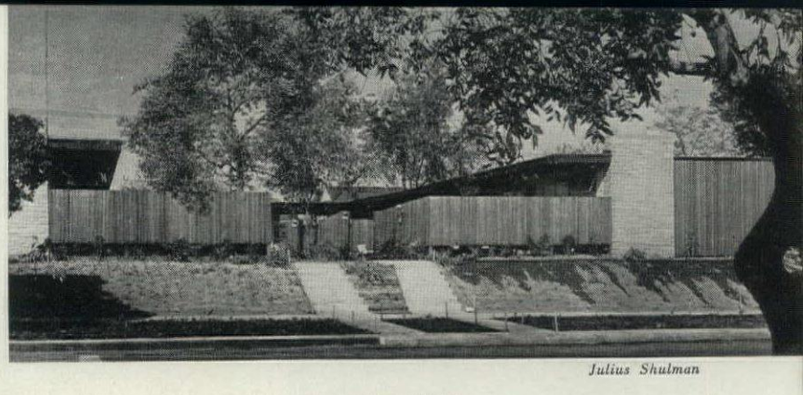




GARDEN APARTMENTS

The landscape architect is becoming a good friend of the aware investor, as well as of the architect —for testimony, these three apartments.

There really is a lot of land in this country, even in the cities. These three city apartment groups—two in California, one in Texas—show that some apartment investors realize the advantage of not covering every square inch of that land with bricks and modern plumbing, but instead, preserving some of it for greenery. For many years planners have been trying to make just this message heard by bankers and other building-backers. Here in these three living groups we have evidence that the theoreticians' words are beginning finally to penetrate the marble-veneer walls of the First National. It is logical that these three examples should be in warm climates, and it is appropriate that they be in cities which are not already overbuilt and overpaved. but which are growing fast.



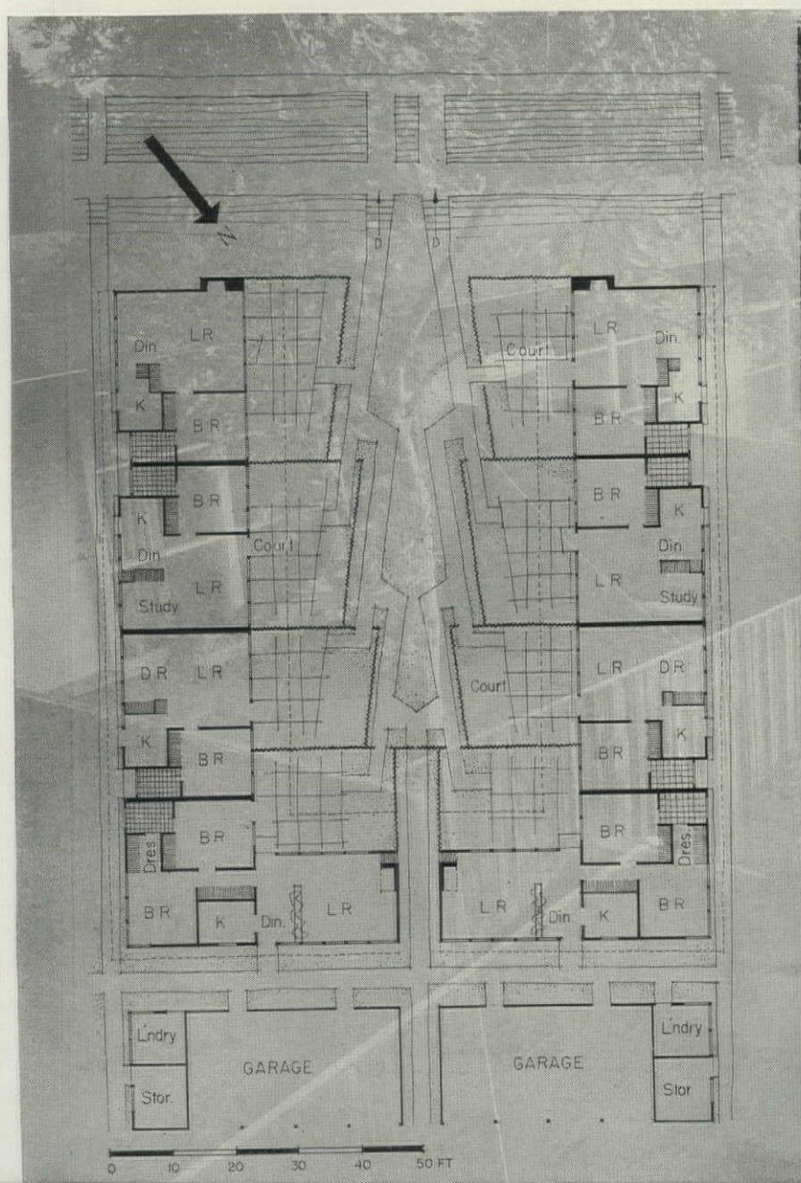
Julius Shulman

1.

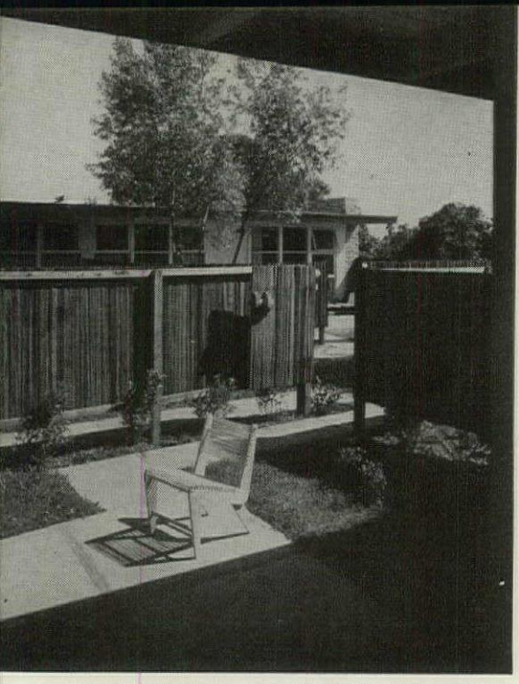
LOCATION: SANTA MONICA, CALIF.
KENNETH NILS LIND, Architect
J. A. GOOCH, Landscape Architect
C. HENNING VAGTBORG, General Contractor

This first garden apartment represents an investment cleanly divided. It was designed and built as one endeavor but in ownership is split by two congenial investors who hold the adjoining 50 x 135 ft. lots. There are, all told, eight apartments, and eight fenced private courts. The apartments are small in number of rooms—each of the two units has three one-bedroom apartments and one two-bedroom apartment—but the rooms are used very well in a conjunctive plan which makes them seem spacious. The small fenced yards are almost part of the interior, seen

FIRST APARTMENT GROUP SHIELDS YARDS WITH VERTICAL BOARD FENCES; ELEVATION ABOVE STREET GIVES FURTHER PRIVACY





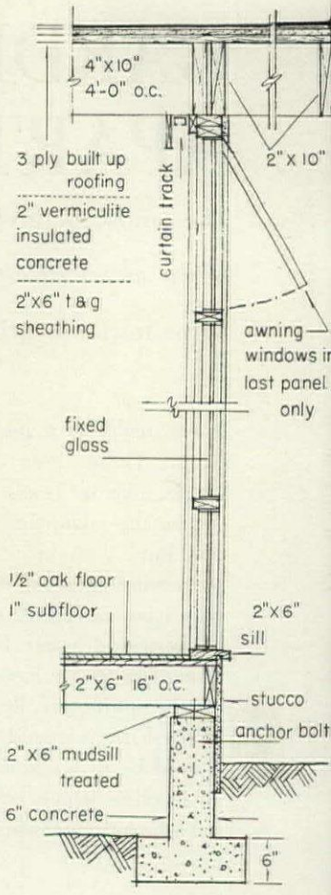


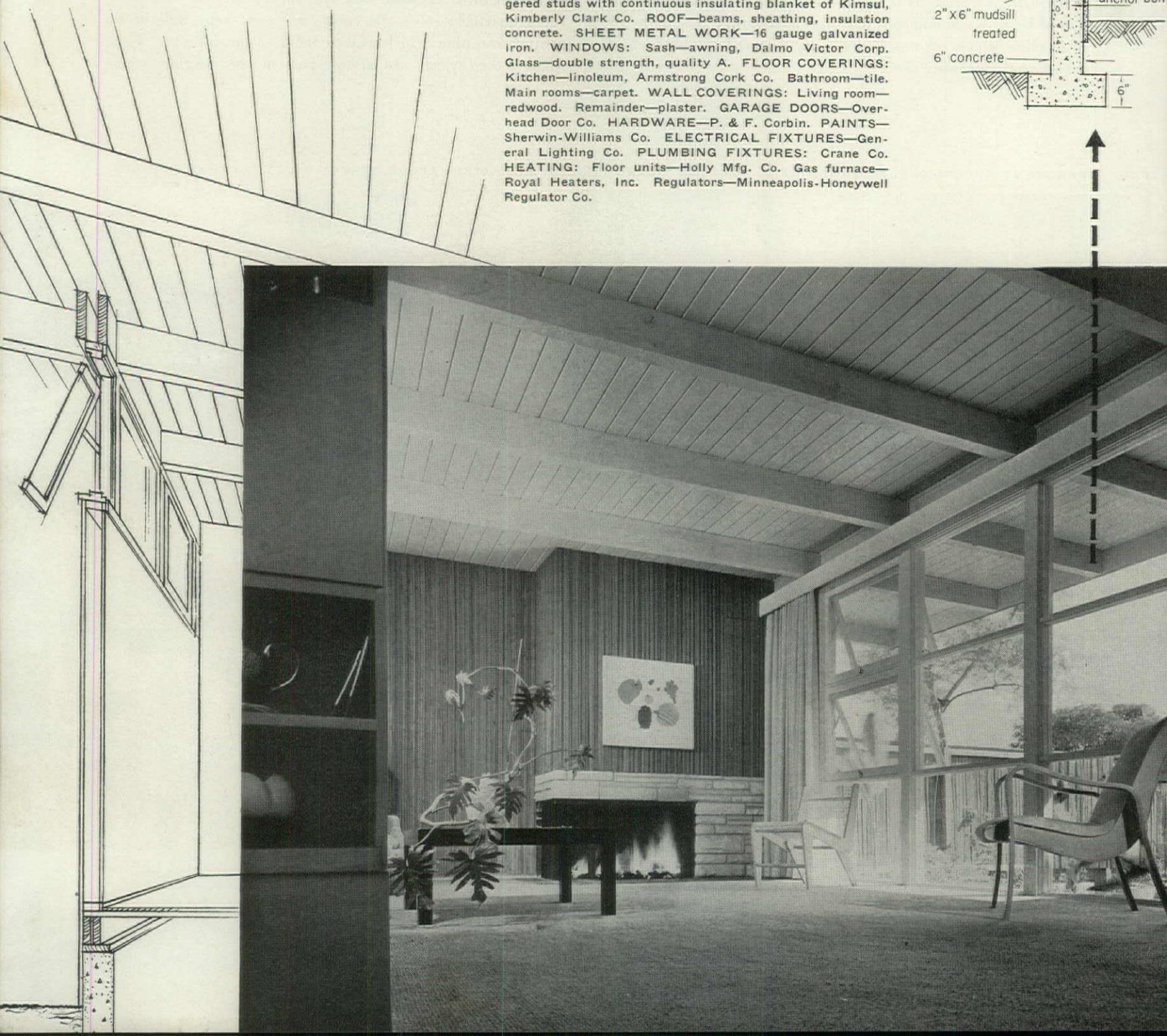
VIEW FROM AN APARTMENT INTO YARD

through glass walls. Framing of the ceiling and walls is designed with great skill; the ceiling extends out, forming a long protective overhang.

The unit is an outstanding investment, with a return well over 20 per cent. Land value at time of building was $6,500 for each of the adjoining 50 x 135 ft. lots, or $13,000 total. Construction total for both was $68,000. Mortgage financing involved a pair of $14,000 mortgages, for a total of $28,000 at 5 per cent payable in ten years at $140 per month. Rentals of each investor's unit: two single bedroom apartments at $175 per month; one single bedroom apartment at $150 per month; and one two bedroom apartment at $225 per month. Gross income—$17,400 per year. Upkeep, interest on the investment, taxes, insurance and other expenses which come to $1,290, leave the total net income per year for each of the two unit holdings at $7,410. Even with an additional $1,000 per year for depreciation, and $800 for vacancy factor, the return stands well over 20 per cent.

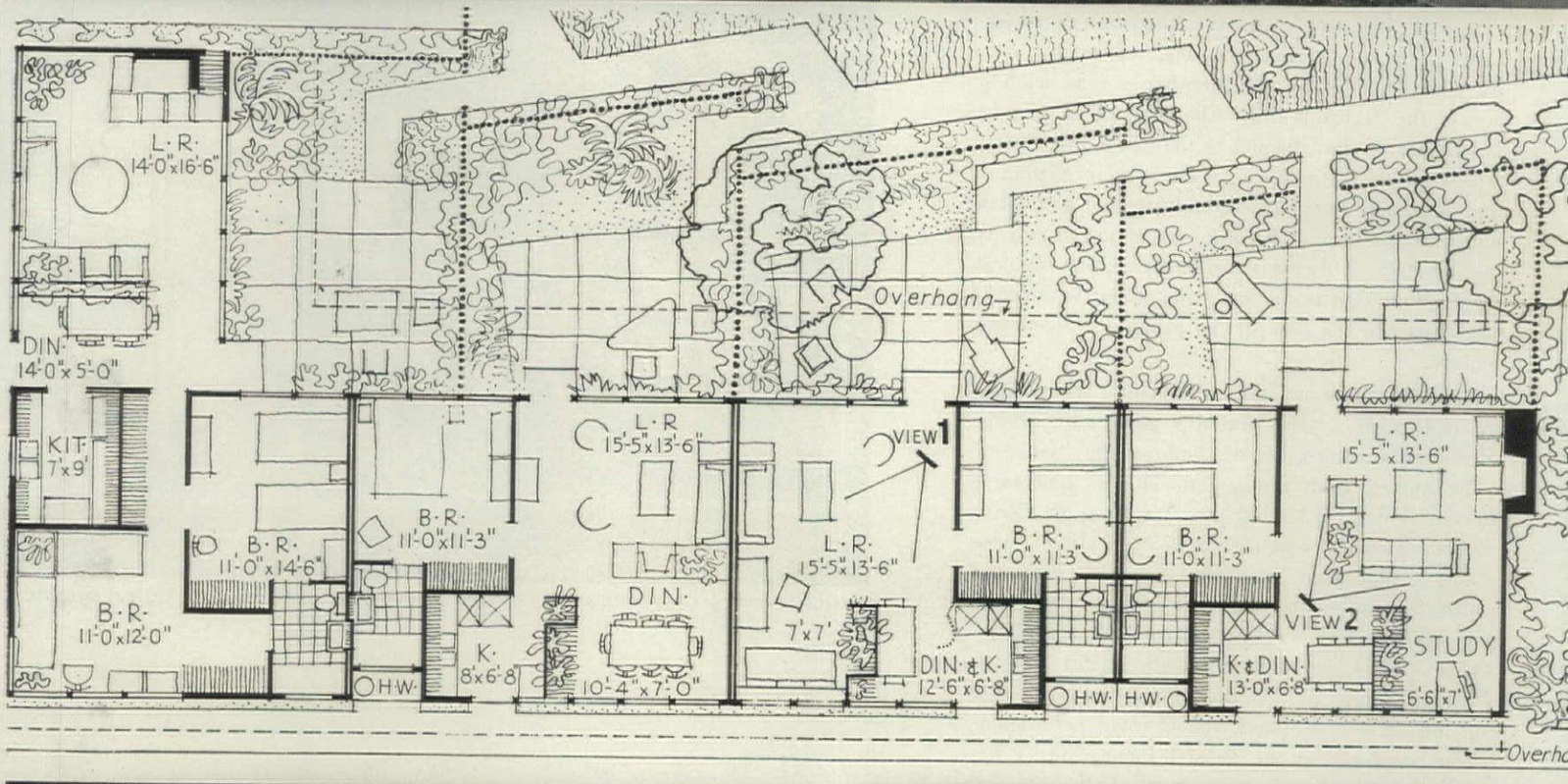
CONSTRUCTION OUTLINE: Exterior walls — stucco, waterproof paper, studs and plaster. Party walls—staggered studs with continuous insulating blanket of Kimsul, Kimberly Clark Co. ROOF—beams, sheathing, insulation concrete. SHEET METAL WORK—16 gauge galvanized iron. WINDOWS: Sash—awning, Dalmo Victor Corp. Glass—double strength, quality A. FLOOR COVERINGS: Kitchen—linoleum, Armstrong Cork Co. Bathroom—tile. Main rooms—carpet. WALL COVERINGS: Living room—redwood. Remainder—plaster. GARAGE DOORS—Overhead Door Co. HARDWARE—P. & F. Corbin. PAINTS—Sherwin-Williams Co. ELECTRICAL FIXTURES—General Lighting Co. PLUMBING FIXTURES: Crane Co. HEATING: Floor units—Holly Mfg. Co. Gas furnace—Royal Heaters, Inc. Regulators—Minneapolis-Honeywell Regulator Co.







Julius Shulman, photos

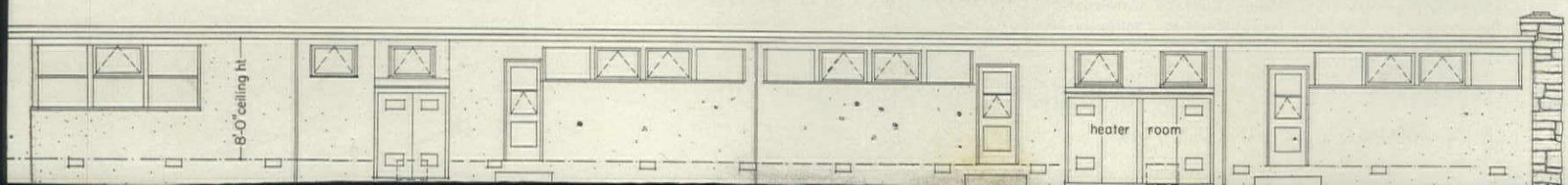




VIEW 1 TOWARD THE HIGH WINDOWS OF THE OUTSIDE APARTMENT WALL



VIEW 2 THROUGH LIVING ROOM TO AN ENTRANCE YARD



2. Lawndale Village—a hamlet of apartment units in a large southwest city

LOCATION: HOUSTON, TEXAS

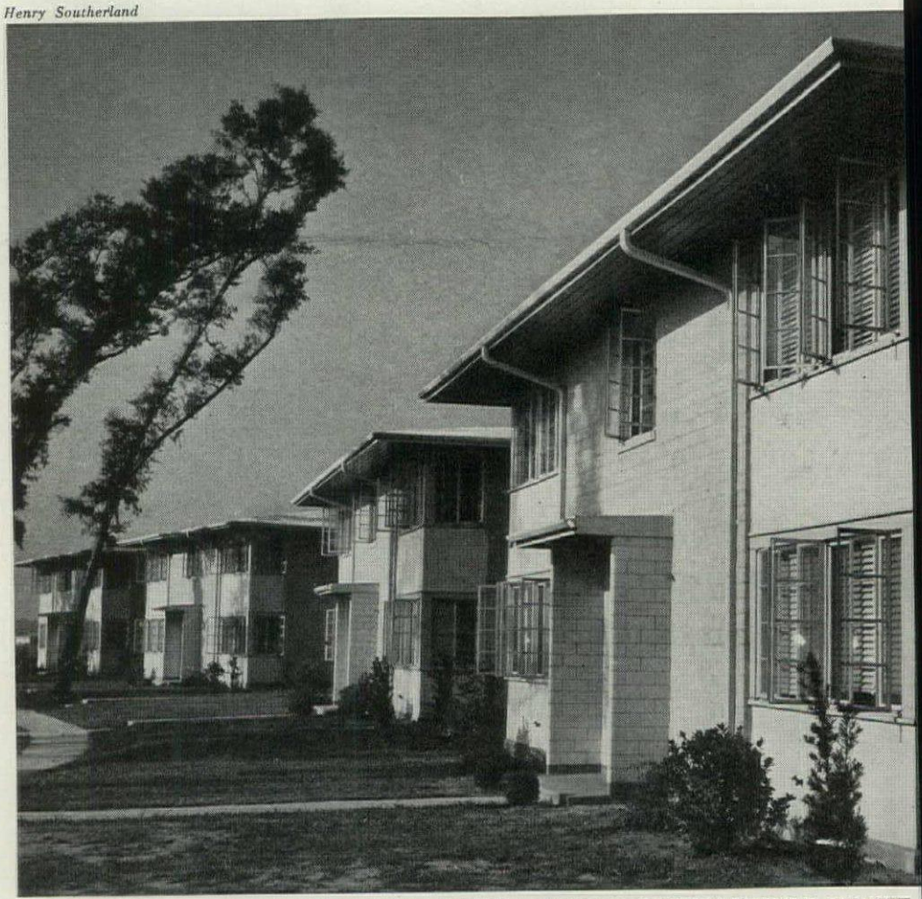
WILLIAM G. FARRINGTON CO., Developers and Builders

This is the largest of the three garden apartments. There are 88 units, paired on the first and second floors of 22 similarly planned sections, which are in turn linked in several groups on the 16½ acre plot. Ownership of the entire enterprise is divided evenly between two corporations, but for common identity the one name, "Lawndale Village," is used, since all the apartments are under the supervision and management of the same operating company. Location is near two important thoroughfares in booming Houston—one, the main artery for downtown traffic, and another a road leading across the Houston Ship Channel and down the north side of the Channel to the expanding industrial section. All apartments are similar in plan—one bedroom, living room, and kitchen, with bath and dining alcove. The units are arranged two by two on two floors on a central axis, ink-blot-test style. Well kept lawns and wide streets with parking spaces to the rear of the groups complete the picture.

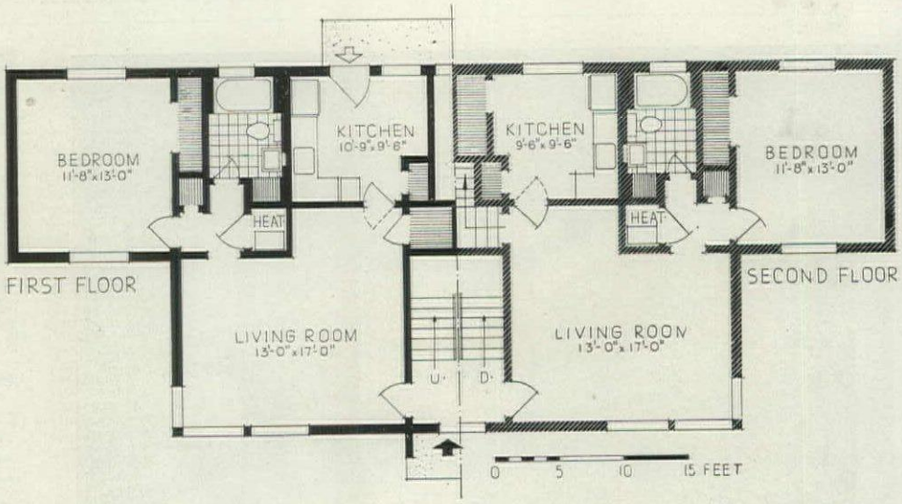
Monthly rents on the apartments are $64.50, as set by O.P.A. The section is good, with groups of owner occupied homes flanking the "village." (The homes, built in the late Thirties and early Forties under FHA, sold then for from $5,250 to $6,000. Their current market price is almost twice that). Total land cost of Lawndale, including utility improvements, was $68,060, or about $800 per dwelling unit. Total construction cost (1943-44) was $374,100—approximately $4,250 for each 750 sq. ft. living unit. With 100 per cent occupancy for the last three years, the average net income before depreciation or federal income taxes has producd a return of 8 per cent on the original invested cost, 2 per cent after payment of FHA mortgage insurance, principle and interest. The financing involved two loans, each less than $200,000, insured by FHA under Section 608 of the National Housing Act.

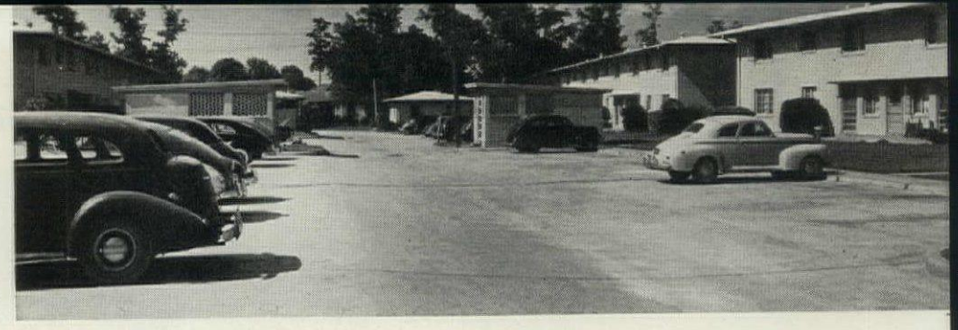
CONSTRUCTION OUTLINE: Foundations — reinforced concrete. Waterproofing—2-ply mopped on over tile before concrete floor slab was laid. Exterior walls—vertical cell tile with Velure Texture, Acme Elgin Co. Interior—wood studs, Rocklath and plaster, U. S. Gypsum Co. Floors—yellow pine subfloor, 75 lb. deadening felt, oak finish. ROOF—1 in. gypsum roof units for sheathing, U. S. Gypsum Co., 20-yr. built-up, Philip Carey Co. SHEET METAL WORK—26 gauge Armco iron, American Rolling Mills Co. FLOOR COVERINGS: Bathrooms—tile. Kitchens—linoleum, Armstrong Cork Co. Halls—asphalt tile. HARDWARE—Schlage Lock Co. and Sargent & Co. PAINTS—U. S. Gypsum Co. ELECTRICAL INSTALLATION: Wiring system—knob and tube. Switches—Arrow-Hart & Hegeman Electric Co. PLUMBING FIXTURES—Crane Co. Soil pipes—cast iron. Water pipes—galvanized iron. Kitchen equipment—Kitchen Maid Corp. HEATING—Janitrol winter air conditioner, Surface Combustion Co. Grilles—Hart & Cooley. Regulator—Minneapolis-Honeywell Regulator Co. Water heater—Crane Co.

Henry Southerland



SIMILAR UNITS OF FOUR APARTMENTS STAND ALONG A GENTLY CURVED STREET



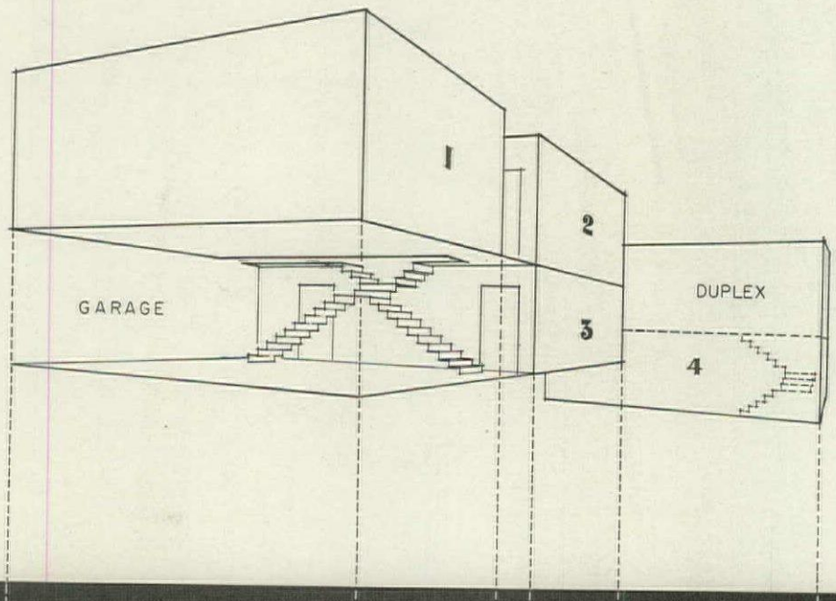


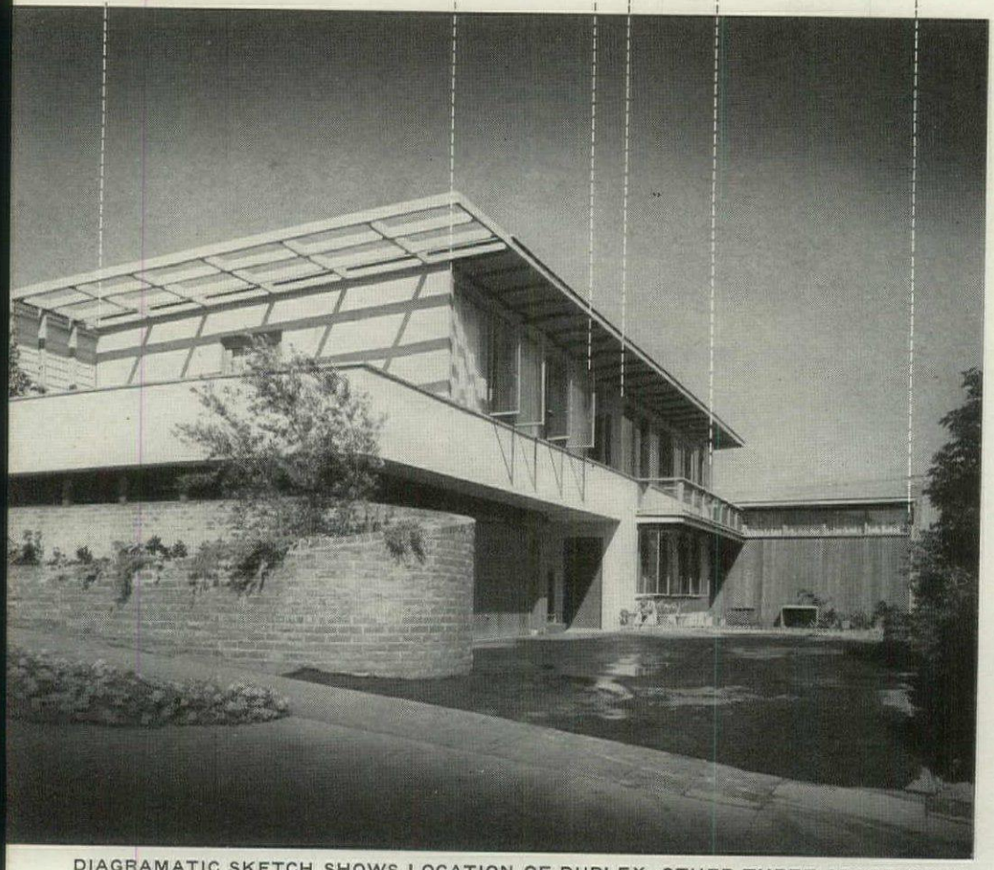
Elwood M. Payne



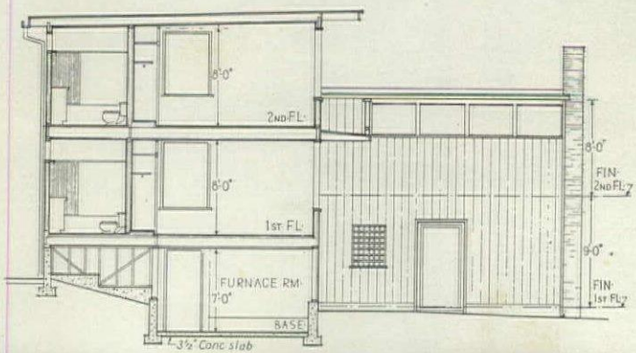
3. A four-apartment building in a pleasant California garden

LOCATION: BEVERLY HILLS, CALIF.
CARL LOUIS MASTON, Architect
GARRET ECKBO, Landscape Architect





DIAGRAMATIC SKETCH SHOWS LOCATION OF DUPLEX, OTHER THREE APARTMENTS



The program for these apartments, says the archi tect, was to provide income units that were superio to the type of minimal shelters favored in 1946 b operative builders who knew that people woul rent anything with a roof.

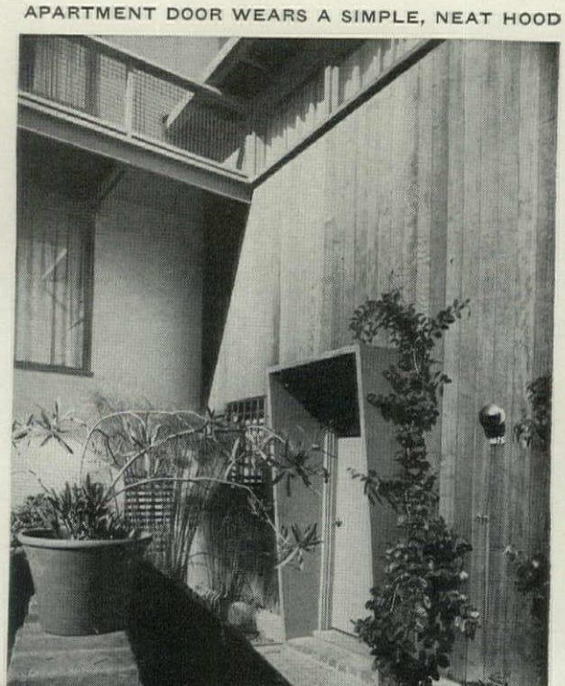
The aim of the program was accomplished hand somely. This richly landscaped, soundly designe building contains four separate apartments: a two bedroom duplex; two single-bedroom-plus-living room combinations; and a neat one-room bachelo apartment with bath, kitchenette, and dressing alcove. All the apartments have a terrace or porch, and some include built-in furniture.

Construction is brick, stucco, and redwood sid- ing. The floor of the lower story is of conventional wood joist construction with oak flooring. The sec- ond floor system is composed of double 2 x 10's 4 ft. on center which rest on the rabbited 4 x 4's for window mullions. These beams are planked over with 2 x 6 in. tongue-and-groove Douglas fir.

Rents are: for the duplex, about $110; one of the single bedroom apartments, unfurnished, $83; the other, furnished, $115; and the bachelor apart- ment, furnished, about $75. The building was built with cash on hand and no other financing whatever, totaling about $29,000 plus $4,500 for the land. Shortly after it was finished the owner decided to sell. The buyer got a first mortgage of $22,000 from a building and loan association, and a large second mortgage from the seller who in time decided also to take over the first mortgage. Sale price was $37,500.

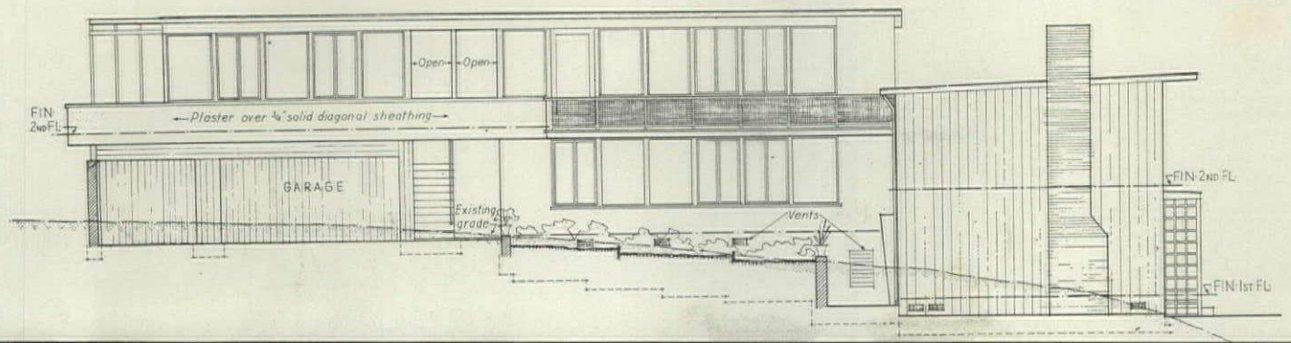
Verdict of architect Maston on the enterprise: "At the present time, naturally, with fixed rentals, the economic value of good design is difficult to evaluate. There is no doubt that, taking advantage of the present rental situation, more income could have been squeezed out of both the lot and the building budget, by sacrificing garden area, liva- bility, and privacy. This would be contrary not only to my principles on planning but to good economic sense when considered over a long term period."

APARTMENT DOOR WEARS A SIMPLE, NEAT HOOD

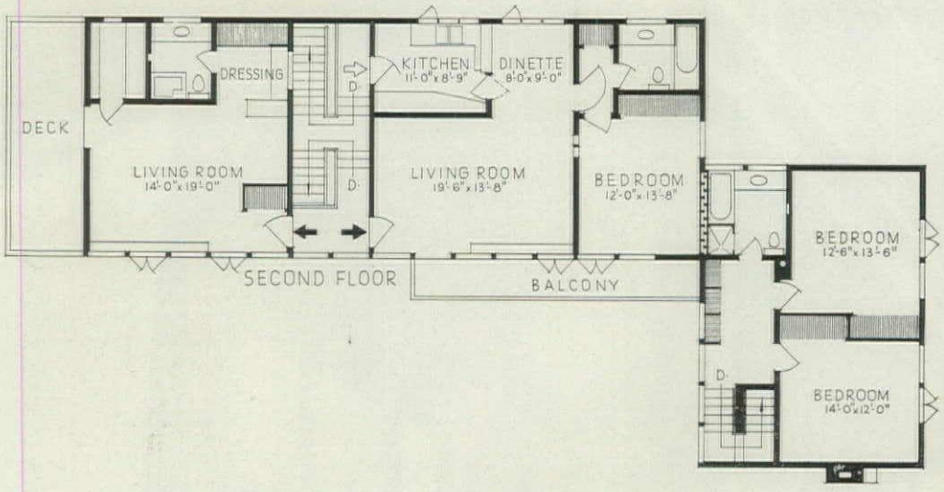


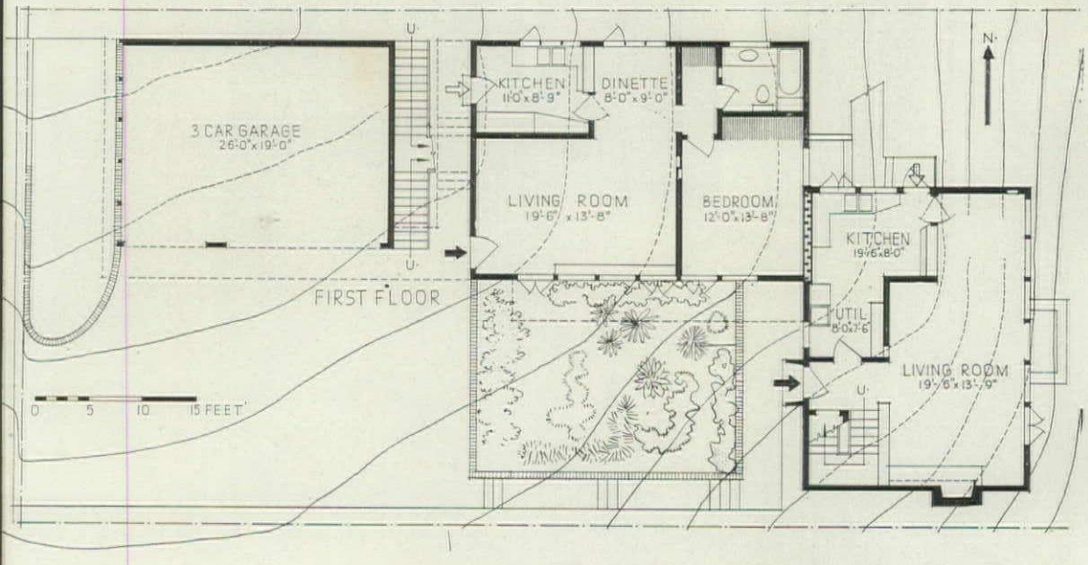
Julius Shulman, photos

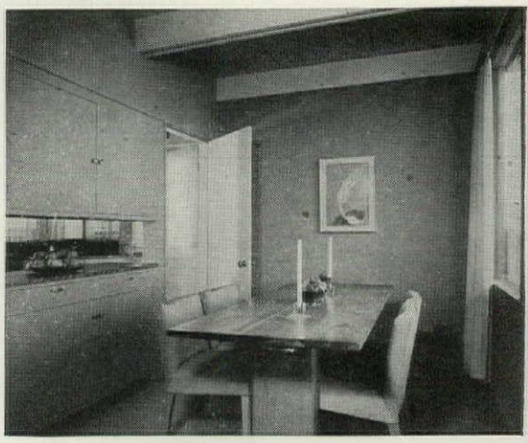
VIEW FROM ENTRANCE OF DUPLEX TOWARD GARAGE DOORS SHOWS HOW WELL STEPPED GARDEN UTILIZES SLOPE OF SITE



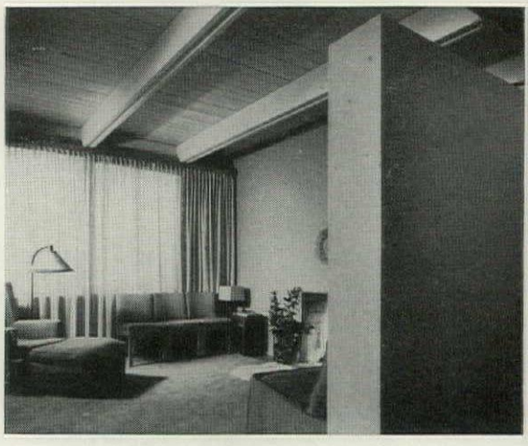
APARTMENT BUILDING BEVERLY HILLS, CALIF.





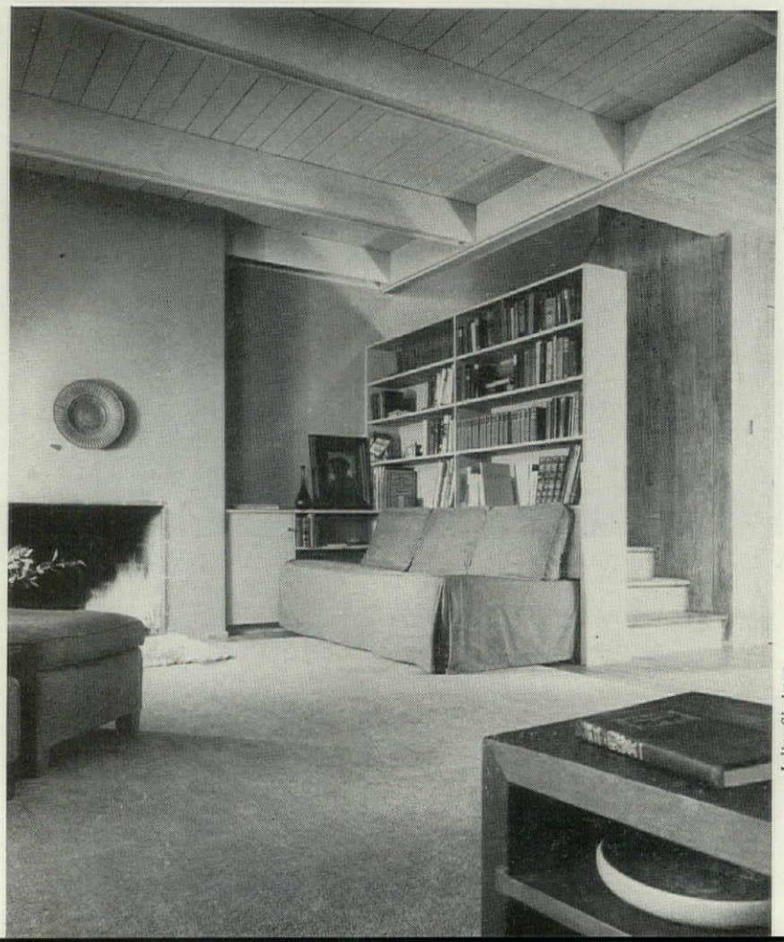


NOTE SIDEBOARD WITH PASSAGE TO KITCHEN



SECOND FLOOR IS CARPETED OVER PLANKING EXPOSED BELOW

CONSTRUCTION OUTLINE: Foundation — reinforced concrete. Exterior walls—8 in. structural brick; inside—studs and plaster or studs and redwood siding. Floors—oak finish. ROOF—tar and white ceramic gravel. DECK—canvas. INSULATION: Roof and sound insulation—5 in. mineral wool. SHEET METAL WORK—26 gauge galvanized iron. WINDOWS: Sash—steel. Glass—double strength, quality B. Screens—Disappearing Rolling Screen Co. FLOOR COVERINGS: Main rooms—carpet. Kitchen and bathrooms—linoleum, Armstrong Cork Co. HARDWARE—Schlage Lock Co. ELECTRICAL INSTALLATION: Wiring—flexible steel conduit. Switches — Bryant Electric Co. KITCHEN EQUIPMENT: Refrigerator—Servel, Inc. BATHROOM FIXTURES — American Radiator-Standard Sanitary Corp. HEATING—forced warm air system, Hays Corp. Regulator—Minneapolis-Honeywell Regulator Co. Water heater—Day & Night Heater Corp.



Julius Shulman

WELDED STEEL COLUMN ASSEMBLIES designed by Alexander Ban replace wood posts in frame houses, are found more efficient in load bearing, installation and cost.

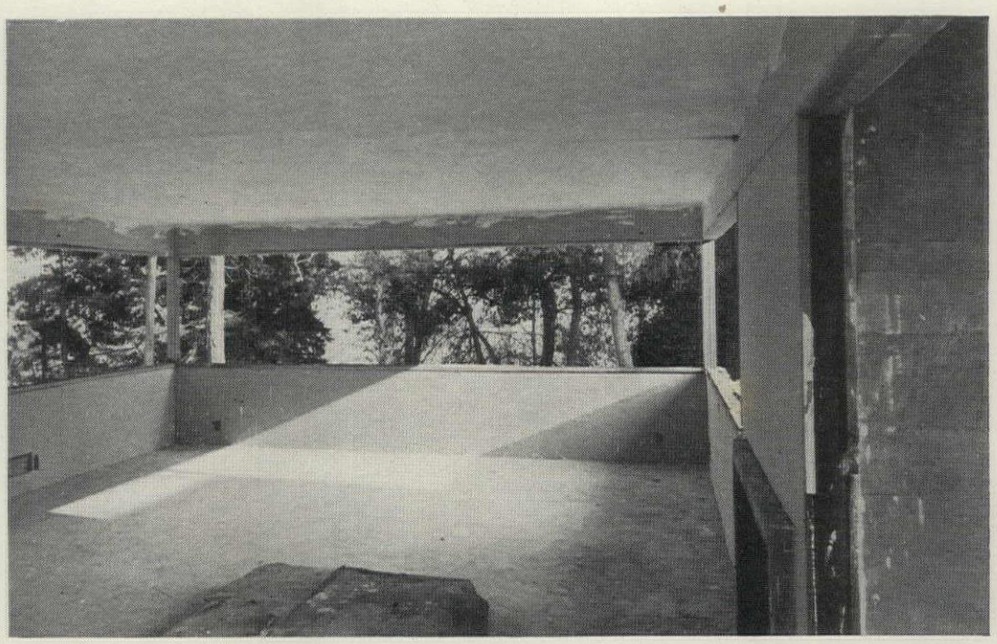
The problem of whether it is practical to use steel as supplementary framing in the building of wood houses has received new attention from Alexander Ban in an experimental house in Los Angeles and a companion comparative study of other methods.* In this close analysis of the design and cost advantages of welded tubular steel column assemblies used with standard wood house construction, Ban has a number of telling points to make in favor of the steel columns.

In both a design and structural sense, vertical supports are the weak points of wood-framed houses, Ban points out. The greater spans created by the new space concepts of contemporary architecture, (both in formation of interior areas and in the relation of interior and exterior) lead to concentrated loads which cannot be handled with entire efficiency with wood posts.

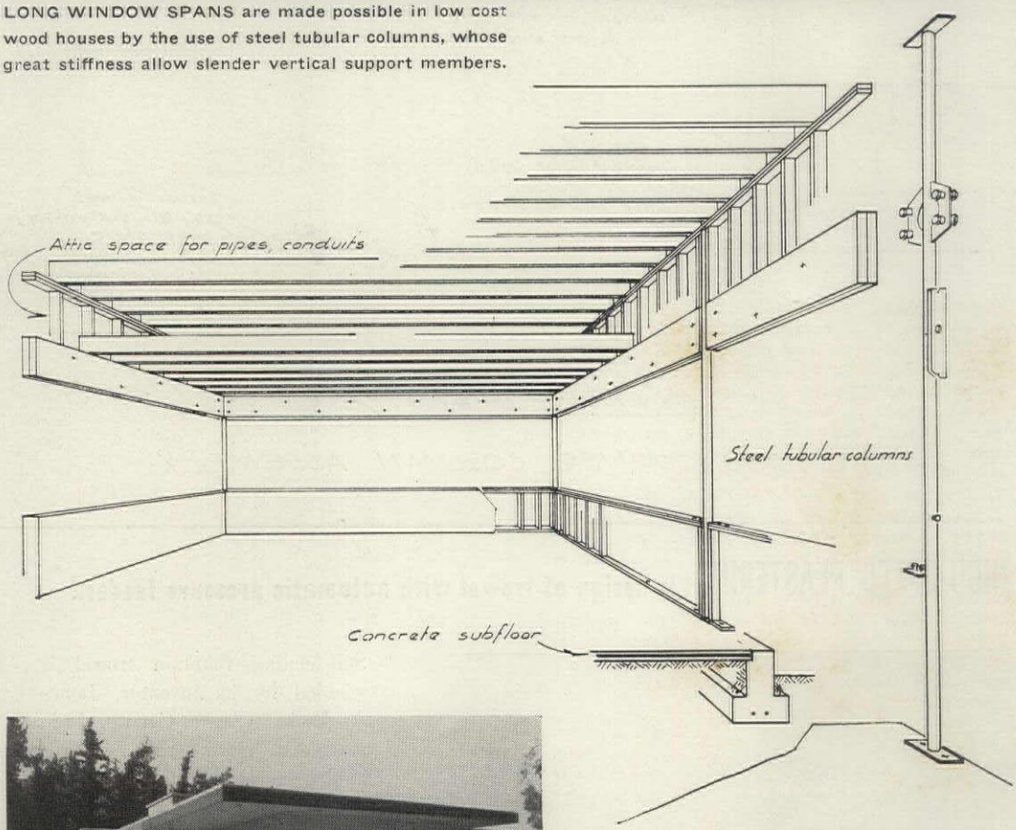
Use of the steel columns in a wood-framed house can go far to attain the design end of many modern architects—the drawing of a new structural dividing line at the window head, with the lightest of vertical structural members and mullions between the roof superstructure and the floor line or window sill line.

Ban's hollow column—tested in the low cost frame house he has designed and built—is the old "lally" in new form: a 2⅜ in. tube, comfortably safe in size for strength with economy, and the maximum size which can be accommodated within the thickness of the wood frame. Such a hollow cylinder, with not too many penetrations of its wall, is the most efficient section to develop a comparatively large radius of gyration. But mere structural efficiency was not the only determining factor in his use of such small sizes in supporting members. It is not enough merely to design the safe structural element. This element has to be connected to the rest of the structure, and connections often call for such bulk that the use of the steel is impractical.

Without welding, the complications of connecting 1⅝ in. and 3⅝ in. wood members to a cylindrical steel surface of 1 3/16 in. radius, centered on the center line of the wood members, would disallow the tubular section. Riveted or bolted connections of vertical and lateral steel plates to a tube of this size would involve the bending of additional angles to fit the curved surface of the column, and the rivets and bolts would have to penetrate the full diameter of the hollow cylinder. Because of this, perpendicular connections required at corner columns could not be made at the



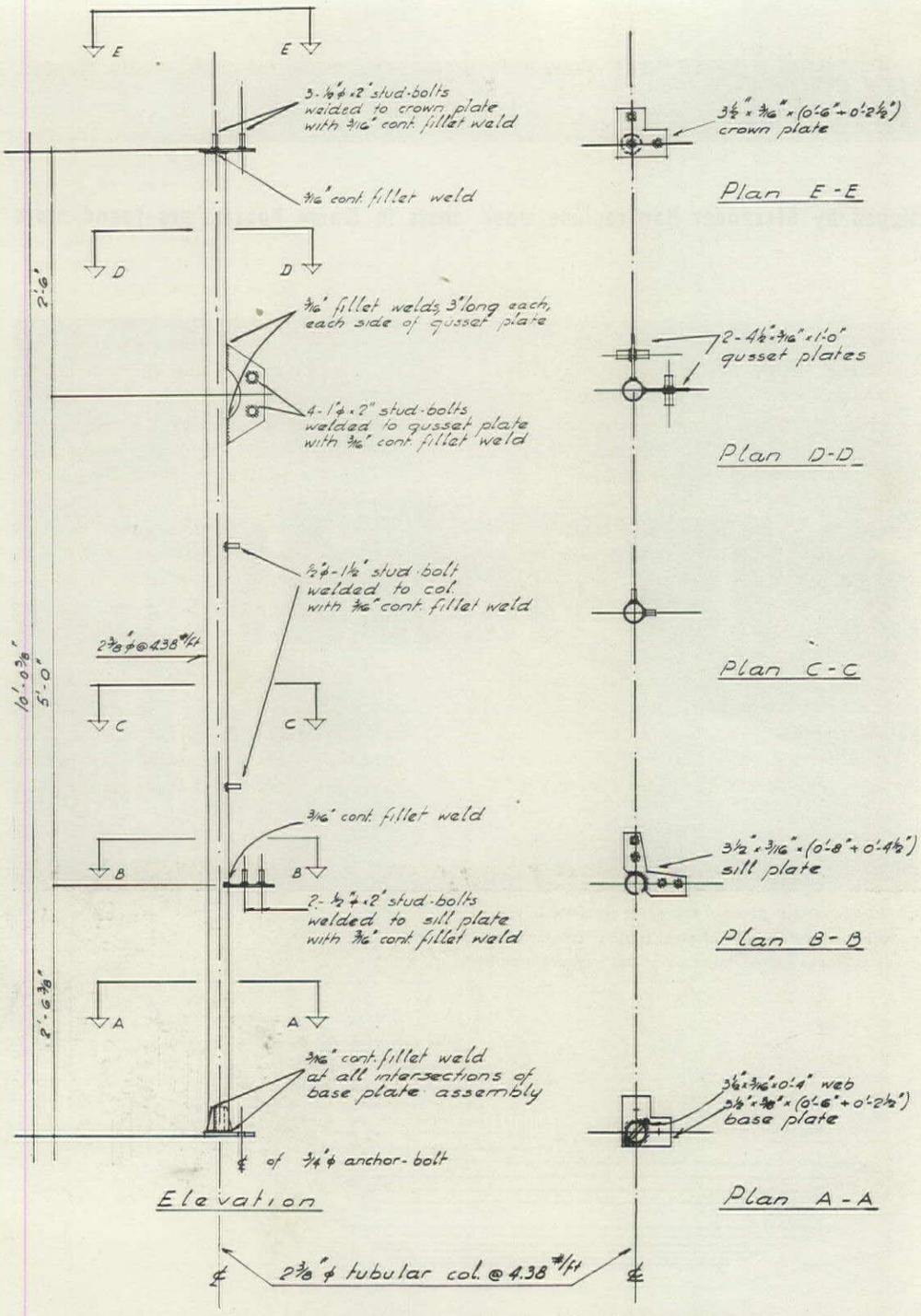
LONG WINDOW SPANS are made possible in low cost wood houses by the use of steel tubular columns, whose great stiffness allow slender vertical support members.





LOW COST HOUSE, built by Ban in Los Angeles, uses the columns he designed for economy and to open long, unbroken stretches of window area in living room.

* The study was prepared for a competition sponsored by the James F. Lincoln Arc Welding Foundation, of Cleveland.



ARC WELDED CORNER COLUMN ASSEMBLY

same heights. On the other hand, the staggering of such connections would pose additional problems at the base plates, crown plates and lintel connections. All these difficulties—if the connections were to be riveted or bolted—probably would result in the use of an angle section in place of the tubular steel column. But an angle section with a radius of gyration comparable to the more efficient tubular section would be 3 in. x 3 in. x ¼ in.; and it would weigh 12 per cent more than the equivalent tube, without counting the heavier connections necessary.

With welding, the need for the heavier angle section is avoided; the better solution in theory, the tubular section, is made more practical as well.

In Ban's design, transmission of the load to the tubular column is made through steel plates which are fillet welded to the column. For connection to the wood members which they are designed to receive, these plates bear stud bolts welded to each side. Additional stud bolts can be welded directly to the column to receive the window frames.

Ban's aim in using stud bolts, which are common in machines and manufactured metal products but uncommon in structural details, was essentially one of complete column prefabrication. Rather than the standard gusset plate connection—bolts through bolt holes—he wanted an assembly containing every part necessary to connect every member of a wood frame.

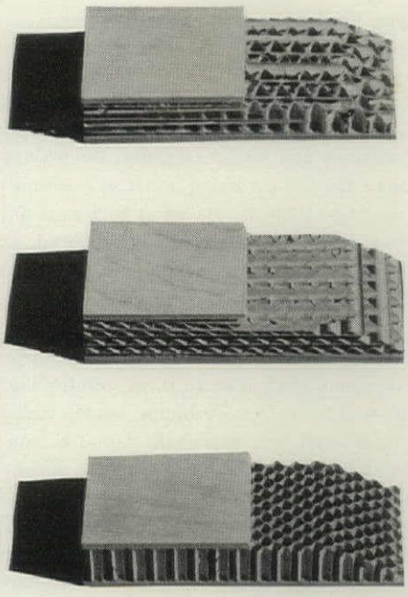
Erection of the column, according to its developer, proved to be faster and simpler than that of any comparable supporting member. The combined steel and wood skeleton around the 700 sq. ft. living room of his house stood in place within three hours after the setting of the vertical supports had begun, with two carpenters working on the job. Base plate connections allow for shimming and adjustments at the setting of the columns due to any irregularity in the concrete foundation.

Ban's cost figures for the 2⅜ in. steel columns are not only considerably lower than the estimated cost of the equivalent angle, but also are lower than the cost of a wood post which would support the same loads. He figures $9.92 will pay for the welded steel column assembly, complete—$2.63 for the material price of the main member, $2.17 for the connections, and $5.12 for labor. The 3 in. x 3 in. x ¼ in. angle would run 41 per cent more, he says, or just under $14. The equivalent wood post to support the 15 to 20 ft. span which the steel column carries would be about 4 x 6 in., according to Ban's calculations, and would represent a smaller material cost than either steel column. But the cost of connections for the wood post runs over twice that of the welded column, and total work cost also is higher. He places the estimated total of the wood post at $13.34, 34.5 per cent over his welded column assembly—not counting time saved by use of the more rapidly erected tubular steel column.

HIGH-SPEED PLASTERING is design of trowel with automatic pressure feeder.



Self-feeding fountain trowel is wielded by its inventor, James A. Hicks, Clarke County, Ind., machinist. Plasterers, claims Hicks, can accomplish four times as much work using this air pressure feeder, as by prosaic methods. Plaster is mixed in the two tanks in the foreground and forced through the hose, emerging from a slot in the face of the trowel. Flow is controlled by the valve on the hose, held in the operator's left hand.



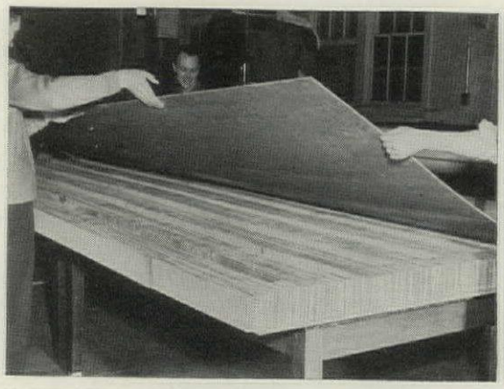
THREE CORES for sandwich panels, as shown above, are all arrangements of impregnated kraft paper layers; below are photos showing assembly of panel, heating coil insertion, and building.

SANDWICH PANELS—soft cores with tough skins made for roofs, walls, floors.

Recent developmental work and test data on sandwich panels for wall floor and roof construction substantiate the predictions of construction experts who have said manufacture and use of these fabricated sections is the next big building development in sight. The Housing & Home Finance Agency has been carrying on a series of tests on various sandwich panels at the Forest Products Laboratory, in Madison, Wis., and a forthcoming HHFA technical bulletin summarizes results so far of continuing tests.

Indications are that the panels offer real potentials to residential construction. Consisting essentially of a light, thick core with dense facings bonded to both sides, the resultant "sandwich" has exceptional stiffness for its weight when properly fabricated, and also boasts good thermal insulating value. And, of great importance, the panels are well suited to factory production methods. In some cases existing machinery can be used to fabricate the insulating paper core.

Three types of core were used in the laboratory sandwich panels, all consisting of resin treated corrugated kraft paper sheets glued together so that the corrugations of adjacent sheets were at right angles. The first type assembly, XN, was sawed into strips of panel thickness and laid on edge between the facings. The XF core variation was similar, except that the flutes ran parallel to the facings. A third type, designated PN, was made of corrugated paper glued with all flutes parallel sawed into strips the thickness of the panel, and placed inside the sandwich with the flutes perpendicular to the facings. Plywood facings —up to 5-ply Douglas fir in the floor panels —completed most of the panels, although additional experimentation was carried on with aluminum facings over a mechanically expanded core. All laboratory-made wall panels were 3 in. thick, design load 20 lb. per sq. ft.; the commercially fabricated aluminum wall panels, design load 25 lb. per sq. ft., measured 2 in. Roof panels, which were as long as 14 ft., design load 40 lb. per sq. ft., were built 4½ in. thick, and floor panels measured 6 in. deep. Some of the roof panels had ventilating flues, and copper coils were installed in some floor panels to test the effect of radiant heating on the material.

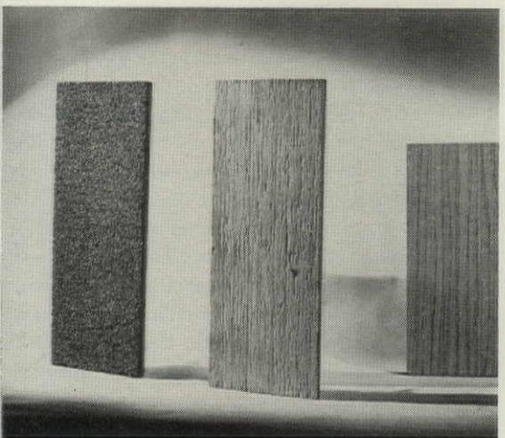






PROCESSED WOOD BOARD of low grade timber distended to preclude warping, can be surfaced for exterior use.

Geoffrey Baker

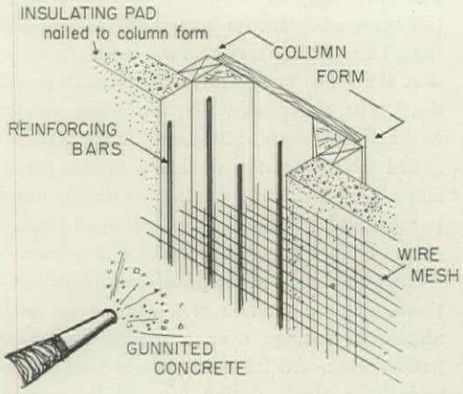


NEW VENEER may be used for a number of different purposes, depending on finish. Above are basic K veneer and variety with saturated felt finish. Sample to right is flooring which uses same distending principle as K veneer.

A new line of surfacing materials called "K-Veneer," designed to reduce the cost of factory-built homes through the use of timber previously considered unsuitable for the home building industry, has been developed by Howard T. Fisher & Associates of Chicago. The board is made of a single layer of rotary cut 3/16 in. Douglas fir veneer faced on one side with heavy kraft liner board. Tests run by Fisher and the Elmendorf Corp. of Chicago, who also are interested in the product, are said to show that the new board is stiffer and stronger in place than insulation or gypsum board. Suited to interior walls and sub-floors, K-Veneer can be surfaced with mineral granules on saturated felt, used for house exteriors. For roofing, light metal surfacing may be substituted for the saturated felt and gravel finish.

The problem of over-all expansion of the veneer when exposed to changes in temperature and relative humidity is met by distending, or slitting, which scores the wood deeply, forming ½ in. strips joined by the uncut fiber strands. The effect of this process is to increase the width of the veneer from 2 to 4 per cent and—more important—to direct the inevitable expansion internally rather than to the borders of the sections. In this way, distortion and warping are minimized. The development was carried out under contract with the U. S. Department of Commerce, Industrial Research and Development Div. Not yet in production, "K-Veneer" is available for licensed manufacture from the Elmendorf Corp.

CONCRETE WALL TECHNIQUE cuts down on forms necessary by use of floor-cast sections and pressure spraying.



A system of building a reinforced concrete wall which all but eliminates formwork is in use by builder Donald B. Ferguson of Phoenix, Ariz. Ferguson, who has applied for a patent on the scheme, uses a combination of precast insulating panels which do double duty as part of the form work for shotcrete columns and walls. In order, the system goes like this: foundation walls are poured first, with steel dowels placed at each column position; then the concrete floor is poured. On the floor, the insulating concrete fiber wall pads—sized to fit between columns—are cast in forms consisting of 2x4's on edge. Then back forms for the columns are erected and braced, the pads are nailed to them, reinforcing steel is teed in, and the columns, beams, and structural wall are shot with Gunited concrete, which is screeded off to take a finish coat. Ferguson has used the method with success in commercial and residential work, building monolithic reinforced walls with good insulating qualities at a cost very close to that of a concrete block wall.

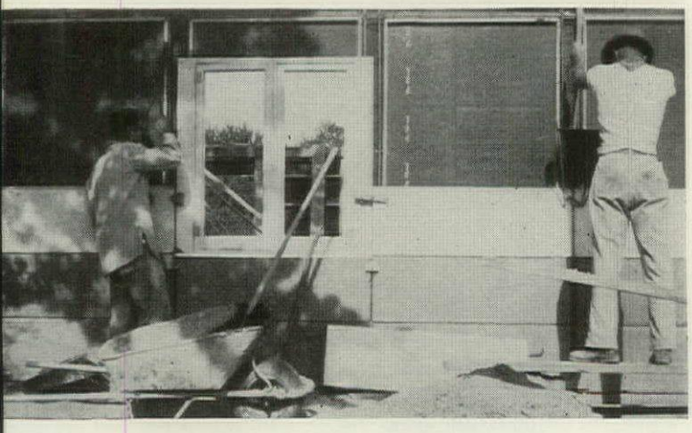
CONCRETE WAREHOUSE, below, built with method shown in the sketch.

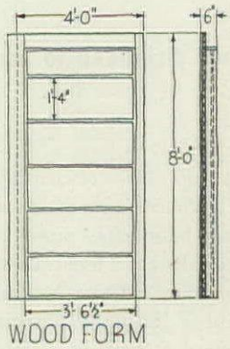


SHOP-CAST CONCRETE SECTIONS, set in place, make up part of column forms in new method for building cavity walls.

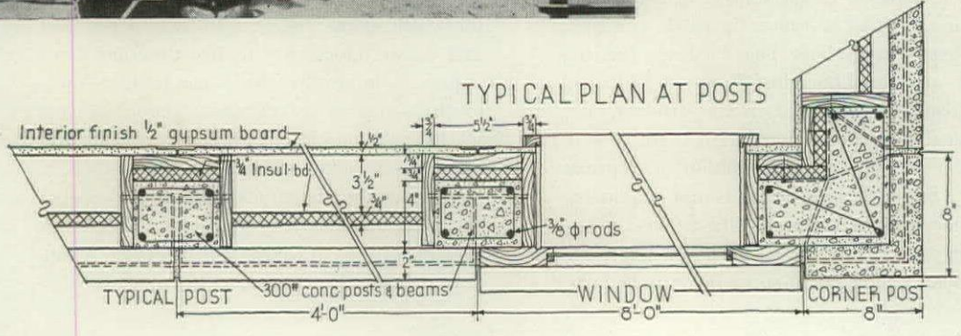


PREFABRICATION of the wall frames and panels in shop makes for fast on-the-job building in this system.





WOOD FORM

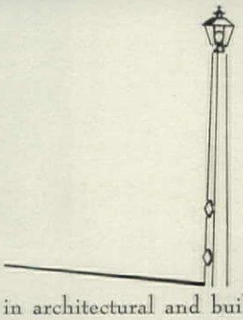


Another new concrete cavity wall construction has been developed and is in use in small house building in Denver by the Edward B. Hawkins Co. Prime advantage, according to Hawkins, is the familiar one of material availability, which is giving the big push to the use of concrete in residential work. Another advantage is the quality of the wall itself—stable, warm, strong and with double air space. Use of skilled labor is also kept to a minimum on the job, since Hawkins' concrete wall sections are precast in the shop.

Job procedure, after pouring of the foundation, calls for the placing of wood wall frame units (also shop made) between sets of dowels planted in foundation wall on the 4 ft. column spacings. The wall frames, held in place with temporary bracing, create a partial form for the columns. In the next step, the column and beam reinforcing rods are set in, and ¾ in. wallboard is placed at the inside face of the columns and top beams for insulation. The precast concrete slabs are placed on edge around the wall perimeter, resting on the foundation and secured to the wood column forms with wire ties, and the columns are poured to the top of the first course. Then, tier by tier, the other slabs are placed and the rest of columns poured. The walls can usually be poured in a day, and the top beams the following day, after allowing a few hours for settlement in the columns. The precast wall slabs may be regular gravel aggregate with various finishes, such as circular float or brush finish, to be painted with Portland Cement base paint after erection, or they may be given an exposed aggregate or pebble dash finish at the shop. *(Continued on page 120)*

Look to Ro-Way for the New Way!





Ro-Way engineers are constantly alert to the latest in architectural and building trends. When the "up-front" garage came in, Ro-Way was ready with the overhead type door that had the good looks and the smooth quiet operation you demanded.

When lower headroom and maximum clearance was called for, again Ro-Way was ready with the new Model 21.

When occasional lack of uniformity in spring power was detected, Ro-Way started making their own springs. They power-meter each spring to the weight of the door it will lift.

That is just one of the many ways Ro-Way engineering has won nation-wide confidence among architects, builders and users.

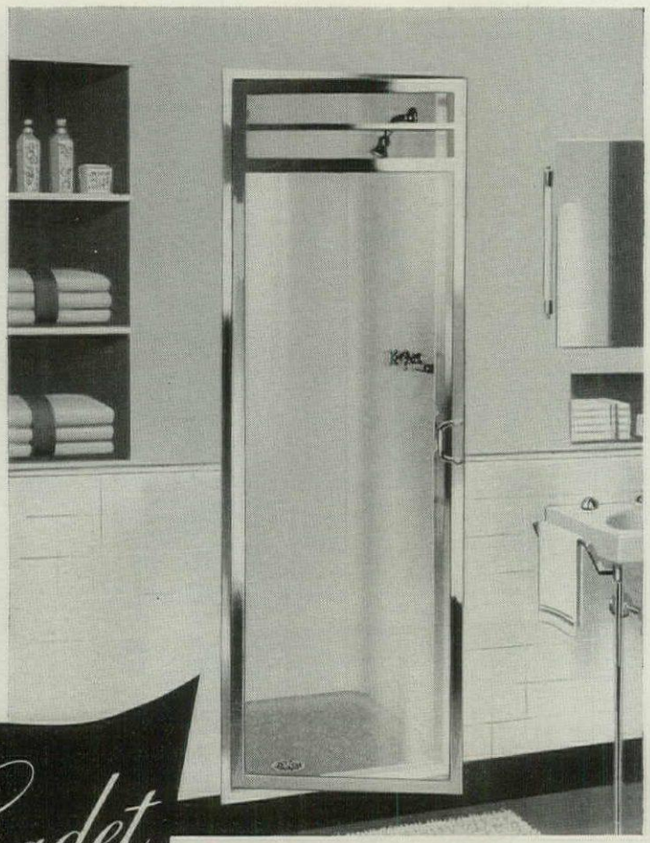
In the future, as in the past "Look to Ro-Way for the New Way" in overhead type garage doors.

Ro-Way
OVERHEAD TYPE DOORS

Ro-Way Doors are also available for commercial and industrial buildings.

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THE Cadet

BUILT-IN SHOWER CABINET

DESIGN NO. 19-B

The built-in Cadet promises to be one of the most popular shower cabinet models in the Fiat line. Redesigned with new construction features such as the elimination of all interior screws and with smooth curved corner joining the Cadet can be classed as the modern shower of the future.

The demand for the ultimate in clean cut appearance, and the trend toward a built-in or enclosed shower has inspired the new built-in Cadet. Equipped with a Zephyr or Dolphin glass door as illustrated the Cadet model 19-B is a natural for installation in the average, as well as the better class of homes.

The exclusive Fiat escutcheon type door frame conceals the joint between wall material and cabinet stiles. This unit is of particular interest to operative builders because of its beauty of design and savings over built-on-the-job shower construction.

Size 36″ x 36″ x 80″, receptor precast terrazzo with cast-in drain. Walls, bonderized, galvanized, steel finished in white baked-on synthetic enamel. Can be supplied with Dolphin or Zephyr glass door, or shower curtain.

Fiat *Metal Manufacturing Company*

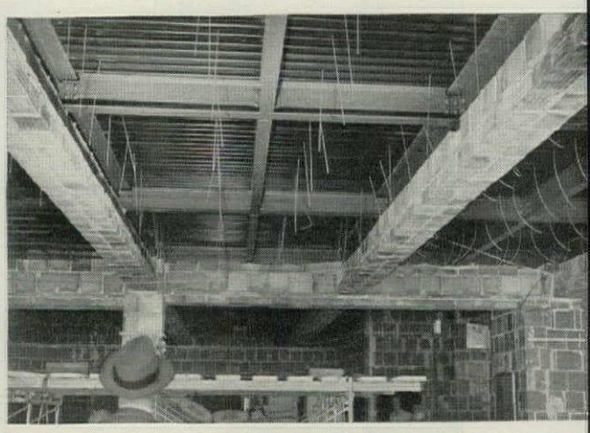
1203 ROSCOE ST., CHICAGO 13, ILL.

LONG ISLAND CITY 1, N.Y. LOS ANGELES 33, CALIF.

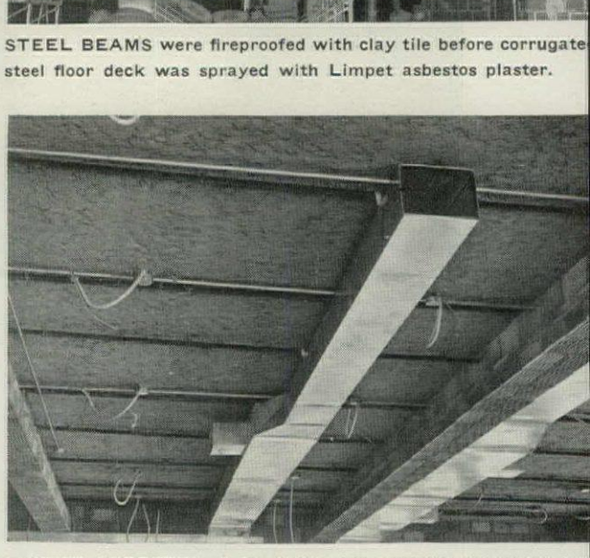
In Canada Fiat showers are manufactured by The Porcelain and Metal Products, Ltd., Orillia, Ont.

SPRAYED ASBESTOS PLASTER doubles as acoustical insulation and fireproofing in new insurance building.

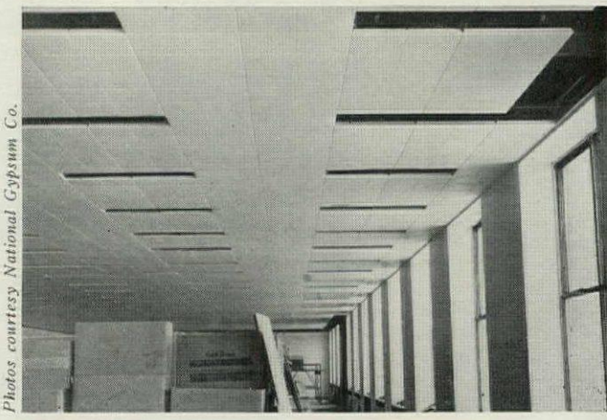
In the United Benefits Life Insurance Co.'s new building in Omaha, Neb., sprayed "Limpet" asbestos plaster successfully plays a dual role—it fireproofs the metal decking and provides an acoustical treatment behind the hung ceiling. Design of the job called for a hung ceiling to accommodate ventilating ducts and lighting troffers. By spraying 1 in. of Limpet asbestos over wire mesh, the customary fireproofing coat of Vermiculite plaster for metal decking was eliminated, as well as sound absorbing pads in the perforated metal ceiling pans.



STEEL BEAMS were fireproofed with clay tile before corrugated steel floor deck was sprayed with Limpet asbestos plaster.



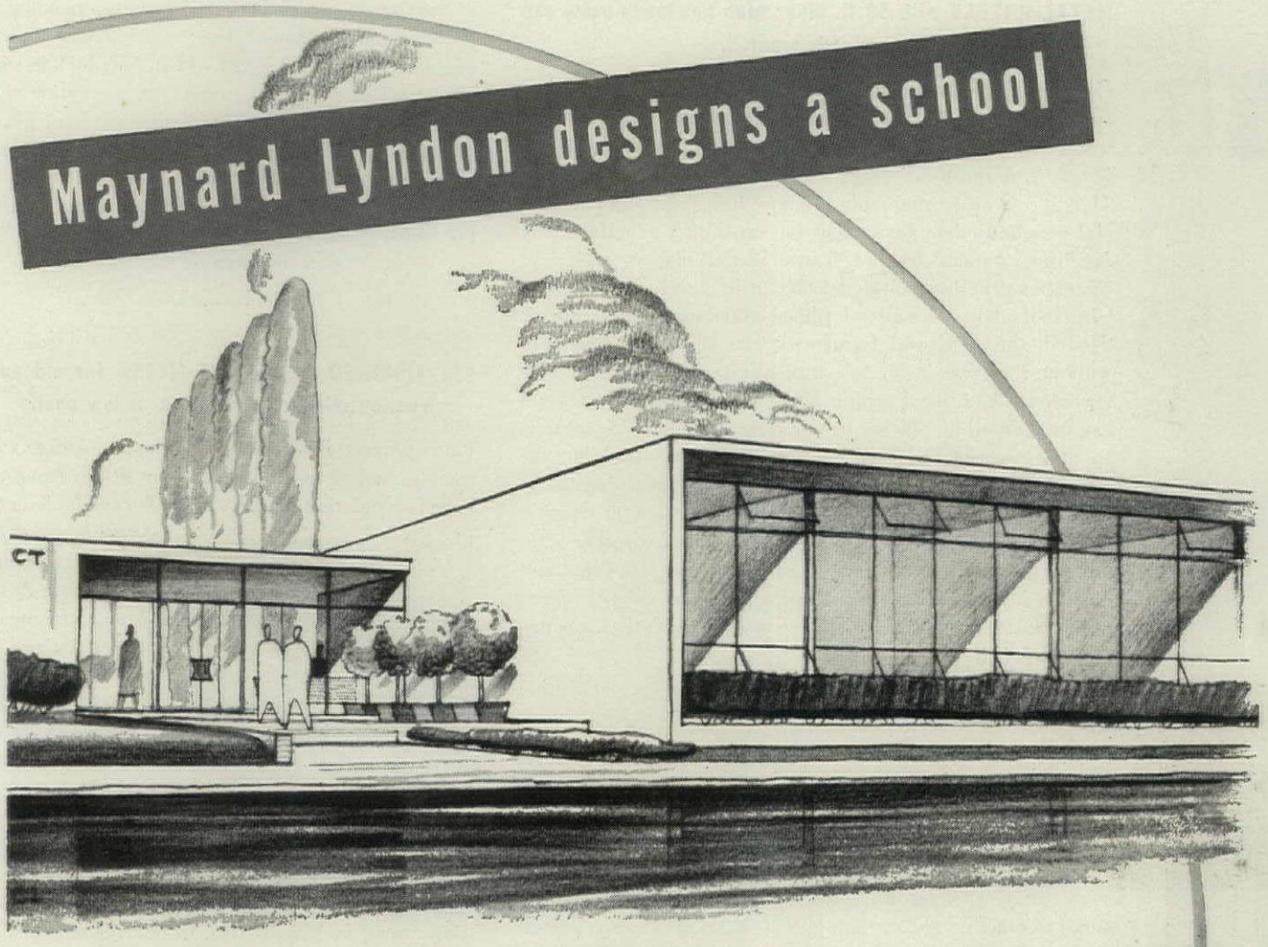
LIMPET ASBESTOS, 1 in. thick, was sprayed on metal lath hung from decking. Ducts and lighting troffers were installed.



Photos courtesy National Gypsum Co.

PERFORATED METAL CEILING needs no absorbing pads. Sprayed Limpet acts as sound absorbent as well as fireproofing.

Maynard Lyndon designs a school



Mesker Steel Windows

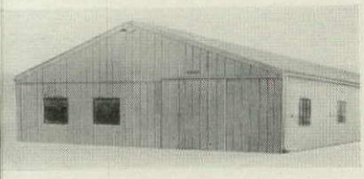
"Walls of steel windows, with their slender muntins and narrow mullions, are the one best means of flooding classrooms with eye-saving natural light."



Architect
Maynard Lyndon, A.I.A.
Los Angeles, Calif.

See the Mesker Catalog in Sweet's File Architectural, Sec. 16a/20, or write for your copy of the Book of School Windows, to Mesker Brothers, 4336 Geraldine, Saint Louis 15, Missouri.

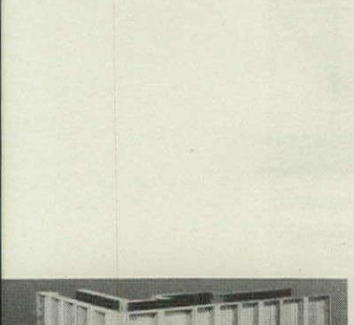
BUILDING REPORTER

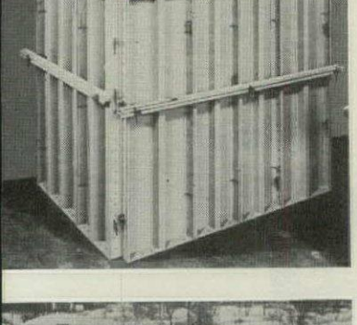


METAL PREFAB with 50 ft. clear span has many uses, can be quickly and economically erected.

Engineered to the highest AISC standards and designed to comply with local building codes, Steelcraft's new Model 50 metal prefab has a 50 ft. clear span and is available in any length in multiples of 20 ft. and has an eave height of 14 ft. Thus it is readily adaptable to many industrial and commercial uses and offers advantages for expanding manufacturing facilities, storage and warehouse space, display rooms or recreational buildings. Model 50 can be purchased complete with roof and side walls of ribbed aluminum panels. Or, if desired, the structural framework can be supplied with or without roof panels for use with any type of masonry construction. Additional width for large manufacturing areas can be realized by placing two or more buildings side by side. In this case the two rows of columns are retained but the interior wall panels are omitted. Model 50, according to the manufacturer, achieves economies through mass production facilities and can be speedily and easily bolted together without special tools or skilled crews. Complete drawings and erection instructions are furnished with the building, all parts of the structure are numbered to correspond with the drawings for easy field assembly.

Manufacturer: The Steelcraft Manufacturing Co., 9017 Blue Ash Road, Rossmoyne, Ohio.





NEW FORMS FOR CONCRETE cut building costs and speed work.

Bulldog concrete forms are steel panel forms for concrete work which combine the advantages of great economy plus speed in erecting and stripping. The Bulldog company's engineers estimate on the basis of considerable job use that the cost of erecting and stripping these forms for foundation and wall construction can be cut down as low as 3.1 cents per sq. ft., figured on New York City labor and material costs as a base. Chief feature of the new form is a patented wall-tie which costs one cent for 8 in. walls, and which is secured to the forms with ordinary 16 penny, square cut nails. The tie not only spaces and holds the opposing panels, but also attaches adjacent panels of the form on each side. Wood, carpentry, and finishing are virtually eliminated with the new form. Steel aligners, used only on outside walls, replace walers and strongbacks. Carpentry is avoided by using panels in seven different widths and in heights from 4 to 10 ft. By setting up panels in combination either horizontally or vertically, any dimension to within 1 in. can be reached. The panels, light enough for one-man handling, are made of high tensile steel which will withstand 65 thousand to 80 thousand lb. psi. Depreciation is claimed to be less than 1 per cent per use. Rentals—1 cent per sq. ft. per day—and sales will be conducted from New York and regional offices.

Manufacturer: Bulldog Concrete Forms Inc., 100 West 42nd St., New York 18, N. Y.

PRE-PAINTED ALUMINUM LAP SIDING with durable, permanent finish is designed to lower building costs.

The main feature of Alside's new aluminum lap siding is its permanent, durable, time-saving infra-red baked enamel finish. This coating—a specially developed Sherwin Williams low-gloss synthetic enamel which is factory applied and infra-red baked—is claimed not only to eliminate forever the need of repainting but to be non-chipping, cracking or buckling. Alside comes in three colors: white, cream and gray, and is supplied in standard lengths 12 ft. long by 8 in wide. It incorporates all the features common to aluminum siding such as lightweight, fire and termite resistance, etc., plus a patented interlocking arrangement which is said to provide a virtually weather sealed surface when applied. This pre-finished material is sold on an installed basis only, is said to cost less than high quality wood siding. Dealer's price is about $2 per 100 sq. ft. plus installation.

Manufacturer: Alside, Inc., Akron, Ohio.

PRE-FINISHED ALUMINUM SIDING for old and new construction eliminates painting, is low cost.

Perm-A-Lap siding is another aluminum siding with a lasting smooth, baked enamel finish resulting from an infra-red baked-on painting process. It is also available in three colors white, cream and gray and is claimed to have life-time durability without the need of future repainting. According to the manufacturer, Perm-A-Lap siding will not warp, split or rot, has insulation advantages and is fire-, vermin- and lightning-proof. Patented corners and interlocking, self-aligning features provide speedy application and a tight weather seal. This pre-painted siding costs about $21.50 per square for quantities between 100 and 400 squares or about $20 per square for quantities over 400 squares. It comes in 10 ft. lengths, 8 ft. wide. One square weighs 45 lbs.



Manufacturer: National Aluminum Products Corp., 533 Market Ave., South, Canton, Ohio.

PRE-FINISHED DURABLE WALL PANELS are economical and easy to apply.

Ser-Wall panels are economical, decorative, semi-structural wall panels made with a tempered Presdwood base and textured and lithographed surface which simulates wood graining. Because of the tempered Presdwood base, the panels provide structural strength, insulation qualities and other properties common to that familiar product. In addition they furnish a permanent washable surface which will not crack, peel or chip. Ser-Wall panels are available in two grain finishes: cross-fired figured walnut and bleached walnut in sizes ranging from 16 x 72 in. to 48 x 96 in., in ⅛ in. thickness. They are supplied with beveled edges and scored borders and are installed by butting together and nailing in the score lines. Ser-Wall panels can be used in offices, stores, window displays, restaurants and homes, cost only about 33 cents a sq. ft.

Manufacturer: Service Products Division, Woodall Industries, Inc., 2035 Calumet Ave., Chicago, Ill.

ONE-COAT SILICONE WATERPROOFING makes brick, concrete, cinder block, etc. water repellent.

A new permanent, heat and water resistant masonry waterproofing derived from Silicone, the Dow-Corning war-developed chemical, Crystal is a *(Continued on page 124)*



Three generations of craftsmen —grandfather "Pops" Olstinski, son "Smiler" and grandson Ray examine a sample of their craft — a new door with matched veneer face.

Roddiscraft Quality

Product of generations of Craftsmen



Ed (Smiler) Olstinski, Foreman of the Veneer Splicing Department, and a 41 year veteran, checks veneers graded and inspected by his son Ray.



William "Pops" Olstinski, a veteran Roddis craftsman, takes his old position at the machine he started operating in 1903.

Pride in the product is a tradition at Roddis—passed down through generations of craftsmen. This three-generation Roddis family is but one of many who make craftsmanship a hereditary tradition at Roddis.

You can see it in Roddiscraft quality hardwood flush doors and plywood — they bear the stamp of the fine craftsman in their perfectly matched faces — their beautifully belt-sanded finish — their true, clean edges.

In working with wood, craftsmanship is the key to quality. Roddiscraft quality, known for more than half a century, is the product of generations of craftsmen.

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass. . . 229 Vassar St.
Chicago 8, Ill. . . .1440 W. Cermak Rd.
Cincinnati 2, Ohio. .457 E. Sixth St.
Dallas 10, Texas. . . . .2800 Medill St.
Detroit, Mich. . 11855 E. Jefferson Ave.
Kansas City 8, Mo. 2729 Southwest Blvd.
Louisville 10, Ky. . . 1201-5 S. 15th St.
L. I. City, N. Y. Review & Greenpoint Ave.
Los Angeles 11, Calif., 2860 E. 54th St.
Marshfield, Wis. . . 115 S. Palmetto St.
Milwaukee 8, Wis. . . .4601 W. State St.
New York City, N. Y., 920 E. 149th St.
San Antonio, Texas. . 727 N. Cherry St.
San Francisco 24, Cal. 345 Williams Ave.

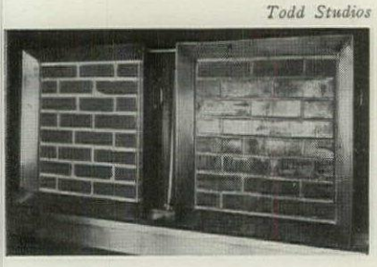
DEALERS IN ALL PRINCIPAL CITIES

Roddiscraft

Roddis Lumber & Veneer Co.

MARSHFIELD, WISCONSIN

Todd Studios



one-coat transparent liquid which is easily flushed on exterior walls with brush or spray. One coat applied to the exterior of brick, concrete, stucco, cinder block, etc., is said to make them lastingly and completely water repellent and stainproof. According to the manufacturer, the new liquid penetrates and coats the microscopic pores of the masonry but does not clog or seal them. It stops capillary attraction which causes water to soak through a wall yet permits the masonry to retain its breathing, self-cleaning properties. The manufacturer states that natural moisture within the treated wall may evaporate but that natural salts will not leach to the exterior creating efflorescence. The manufacturer further claims that treated surfaces become resistant to verdigris, rust and soot stains. Results of tests conducted on two 8 in. thick brick wall sections, an untreated section (right), and a section treated with one application of Crystal on the facing side (left), are h illustrated. The back views of these walls after 500 hrs continuous exposure to water show that the Crystal-trea section remained dry while the untreated section is wa logged and efflorescence has set in. Crystal dries to efficacy within a few hours after application and may painted after two weeks curing. It can be applied directly water-mixed cement paints or to surfaces which are clean free of stearic or wax type waterproof coatings and is invis after application. One gal. of Crystal covers up to 200 sq

Manufacturer: Wurdack Chemical Co., 4951 Fyler Ave., Louis 9, Mo.

INTERIOR OIL PAINT has one-coat coverage, is washa

Wonsover is a new flat interior oil paint that covers even d colored walls with one coat and can be easily washed. I water mixed paints it can be used over wallpaper, d painted walls or woodwork. And as it is washable, pe marks, lipstick and plain dirt can be washed off rea with soap and water. Wonsover comes ready for use, is ea applied and is reported to dry more rapidly than ordin paint. It is suitable for use in kitchens, bathrooms as as other rooms of the house and is available in 12 pa colors plus white. One gallon costs about $3.80, covers ab 500 sq. ft. A quart retails for $1.20.

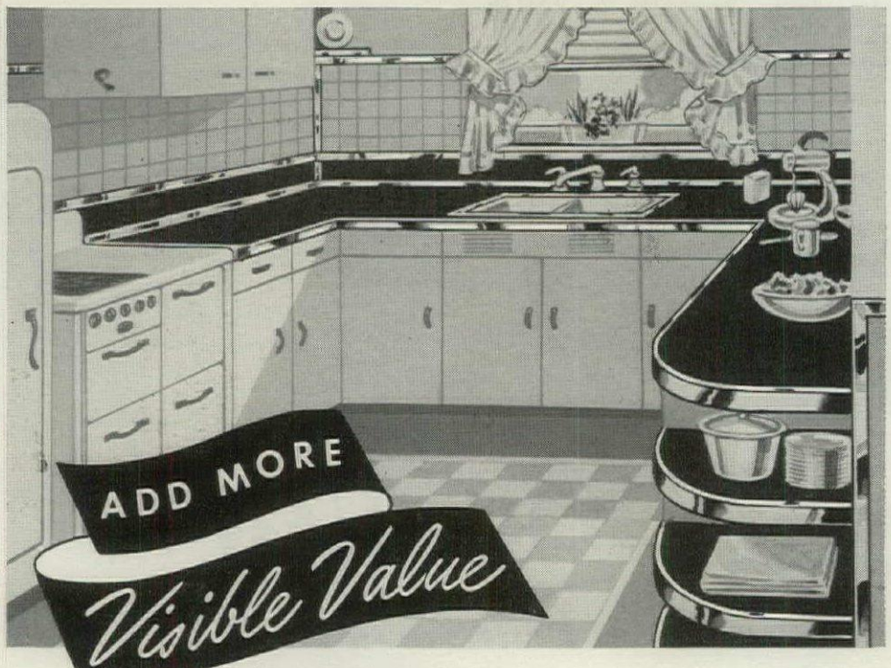
Manufacturer: National Lead Co., 111 Broadway, New Y N. Y.

INSECTICIDAL PAINT and INSECTICIDE ADMIXTURE f ture lasting insect-killing qualities.

Dianol Insecticidal Paint and Dianol Paint Insecticide two effective products for treating walls, woodwork, stor areas and other places in residential, commercial, indust and public buildings to eliminate insects. Especially rec mended for use wherever food is handled, or in tropical semi-tropical climates, the products are said to destroy m household insects such as spiders, ants, flies, roaches, mo mosquitoes, etc., by contact, yet are safe to humans warmblooded animals. The first product, Dianol Insectici Paint is a ready-mixed, one-coat, high quality flat interior w finish oil paint with the insecticide suspended in and ho geneously compounded with the paint film. Dianol Pa Insecticide is, as its name implies, a powder which can added to, and mixes quickly and homogeously with most oil, casein or water thinned paints to render them insecticid Both of the products use Rhothane D-3 as a base. Accord to the manufacturer, this new D-3 insecticide is not only gu anteed effective for the life of the paint, but is said to o greater killing power against insects than DDT while affo ing an 80 to 90 per cent safety factor to humans. The pa easily applied by brush or spray, is supplied in white or in qt., gal. or 5 gal. containers. In lots of 50 gals or mo standard colors are available. Dianol Paint Insecticide mi readily with most flat oil, casein or water thinned paints (with gloss paints, varnishes or enamels) and will not aff the color, adhesive qualities, bonding, drying time or ot qualities of the paint. Dianol Paint Insecticide can also used with cement or concrete paint, finish plaster, or w other coatings for protection of exposed surfaces agai termites, etc.

Manufacturer: Dianol Inc., Pinellas International Airp St. Petersburg, Fla.

(Continued on page 1



A LITTLE KINTRIM ADDS A LOT MORE *Visible Value*

kintrim REG. U. S. PAT. OFF. decorative and protective metal mouldings

The graceful and lustrous beauty of KINTRIM catches your client's eye—accents features of interior design that, *otherwise*, might go unappreciated. And KINTRIM affords you greater freedom along modern, sweeping lines . . . because these metal mouldings also have the structural precision you need and want for more attractive, practical use of (1) Wallboards, and (2) Linoleums for walls, counters and floors.

For "visible value"—to fit covering materials—snugly —KINTRIM is precision-made in a complete range of gauges. To be sure—*specify* KINTRIM!



See KINTRIM in Section 13J-2 of Sweet's 1948 Architects' File—or write us, Dept. 78, for reprint.

KINKEAD INDUSTRIES
INCORPORATED
440 W. SUPERIOR ST., CHICAGO 10, ILL.

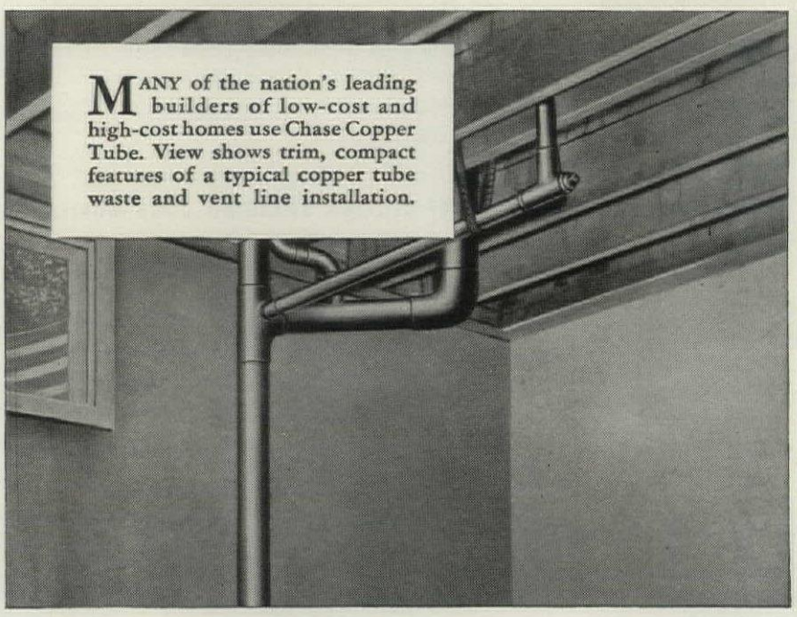
Economical! Superior!

and best of all

Readily available!

CHASE COPPER TUBE
FOR SOIL, WASTE AND VENT LINES!





MANY of the nation's leading builders of low-cost and high-cost homes use Chase Copper Tube. View shows trim, compact features of a typical copper tube waste and vent line installation.

FAST . . . economical installation has made Chase Copper Tube for soil, waste and vent lines a favorite with builders coast-to-coast! Here's why: You reduce many connections because Chase tube is available in 20 foot lengths. Its light weight makes pre-cutting and pre-assembly possible . . . makes maneuvering and handling quicker!

Find out more about the quality features . . . the economy features—the *availability*—of Chase Copper Tube for soil, waste and vent lines. Send for literature. Write Dept. AF78.



FREE! Booklet illustrating actual installations of Chase Copper Tube in homes across the country.

Chase

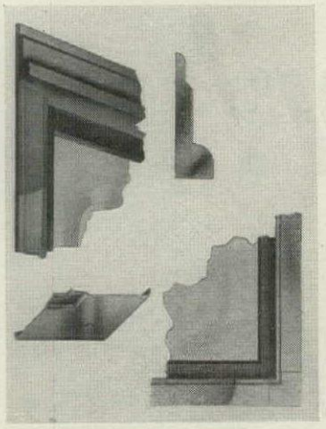
the Nation's Headquarters for
BRASS & COPPER

WATERBURY 91, CONNECTICUT — SUBSIDIARY OF KENNECOTT COPPER CORPORATION

THIS IS THE CHASE NETWORK . . . *handiest way to buy brass*

ALBANY† ATLANTA BALTIMORE BOSTON CHICAGO CINCINNATI CLEVELAND DETROIT HOUSTON† INDIANAPOLIS KANSAS CITY, MO. LOS ANGELES MILWAUKEE MINNEAPOLIS NEWARK NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH PROVIDENCE ROCHESTER† SAN FRANCISCO SEATTLE ST. LOUIS WATERBURY (†Indicates Sales Office Only)

BUILDING REPORTER



METAL CASINGS AND TRIM for residential construction are attractive, low cost and easy to apply.

A new line of low-cost metal casings, Milcor Applied Casings and Trim are especially suitable for small home construction. Included in the new line are three casing trims, a base trim, stop mold and window stool, plus various corner fittings which speed erection and assure tight fitting, neatly finished jobs. According to the manufacturer, all units in the line are attractive in design and practical in installation and use. They are fabricated from 22 gauge cold rolled steel, offer greater resistance to impact and will not warp, split, crack, splinter, rot or burn. The new casings are supplied in 7 and 10 ft. lengths, except the base trim which comes in 10 ft. lengths only, and are painted on both sides with a rust-inhibitive primer coat which may be finished in any desired color. Milcor Applied Casings and Trim can be easily screwed t wood grounds after plastering is completed. Milcor als manufactures a flush type door and window casing for applica tion before plastering. These Plastered-In casings featur an expanded metal wing which provides a secure bond an key for the plaster around doors, windows etc., and prevent cleavage cracks and pulling away from the wall.

Manufacturer: Inland Steel Products Co., P. O. Box 393 Milwaukee 1, Wis.



For the bright, efficient kitchen that will complete your plans for that modern house . . . for the practical beauty you need for that office building still on the drawing board . . . plan on Marlite plastic-finished wall and ceiling panels.

For any room, in any building – wherever practical beauty is required – Marlite colors and patterns provide the sparkling, colorful beauty and economical practicality that appeals to every client and simplifies your specification problems. See the new Marsh catalog in Sweet's File, Architectural, for complete details on Marlite wall-size panels, Marsh Mouldings, Marsh Bathroom Accessories and other Marsh products that help you do a better job. Marsh Wall Products, Inc., 701 Main Street, Dover, Ohio.



Marlite PLASTIC-FINISHED WALL PANELS

for Creating Beautiful Interiors

Marlite, Marsh Mouldings, Marlite Polish, Marsh Bathroom Accessories, Marsh C-100 Caulking, Marsh C-200 and C-300 Adhesive, Marsh C-400 Household Adhesive

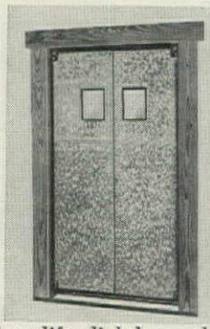
PACKAGED FLASHING SYSTEM features pre-cut specially tempered copper sheets for weatherproofing small homes

Revere's new Home Flashing System offers pre-cut sheet of specially tempered, easily handled, non-rusting copper i a convenient package for weathersealing low cost homes. Eac package contains 10 sheets of 31 gauge tempered copper pre-cut to 18 x 48 in., 200 hardware bronze nails and a explicit, illustrated instruction booklet. The package retail for $19.95 and two packages (60 lbs. of copper) are said t be sufficient to adequately flash an average low cost 5 o 6 room house. The new system is based on the results o extensive research aimed at developing the most economica and durable form of sheet copper for every building purpose Investigation proved that contrary to usual practice, copper flashings .0216 in. thick, 24 gauge, need not always be used for flashing around windows, doors and chimneys. It revealed that 31 gauge copper up to 18 in. wide and 4 ft. long, given sufficient temper, is ample for forming into weather shields in these applications. Further research established that al of the flashings needed for the average low cost house, includ ing valley flashings, could be cut from one standard size sheet 18 in. wide x 4 ft. long. The new system also features simple application techniques. These are described in the complete step-by-step installation instructions.

Manufacturer: Revere Copper & Brass Inc., 230 Park Ave., New York City, N. Y.

SELF-CLOSING SWINGING DOOR withstands hard usage, protects plant areas against heat and drafts.

Sturdily built to withstand shocks and bumps, these metal clad, automatic closing, insulated swinging doors effectively separate and isolate two areas or rooms. In addition they offer an easy, time saving means of passage, protect against heat and drafts and provide fire resistance and privacy. To open, an electric truck or similar heavy duty conveyance has merely to push the doors aside and run through them. When the truck has passed they automatically return to their original position. Operating without springs or air pressure control, the doors are said to lift slightly as they swing open and to move an enclosed two-way gravity cam which is bolted to the upper portion of the side and head jambs. Return of the cam by gravity closes the doors. The new units can be built to any required opening size, have application in warehouses, freight stations, manufacturing plants as well as in hospitals, hotels and restaurants.



Manufacturer: Jamison Cold Storage Door Co., Hagerstown, Md.

(Continued on page 128)

LIGHTING CONTROL





with

MOTOR-DRIVEN POWERSTAT
Lighting Control Equipment

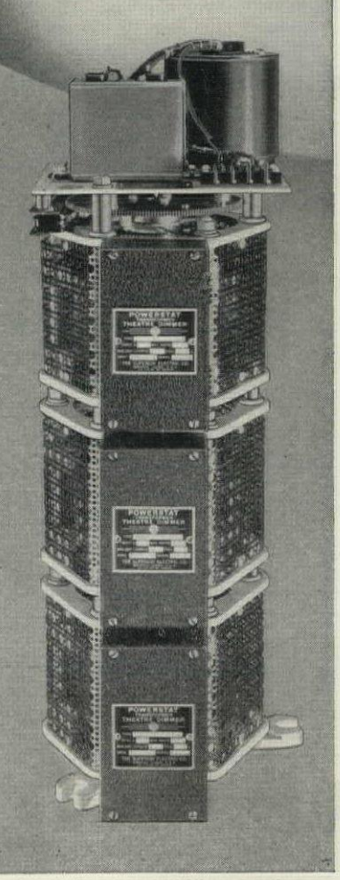
The flick of a switch or the push of a button and the motor-driven POWERSTAT unit quickly and silently responds to dim or brighten your setting. A special motor drives the POWERSTAT with the same dependable control of manual handwheel operation. Appropriate gearing combinations make possible various speeds to suit every requirement.

Here, then, are all the advantages of POWERSTAT lighting control plus remote operation. It not only offers greater flexibility of control, but when teamed with automatic positioning devices, offers the ideal method of creating effective atmosphere for both cold-cathode and incandescent type lighting in auditorium, ballroom, church, restaurant, and cocktail lounge.

Motor drive is recommended wherever two or more POWERSTATS are ganged to handle more than one lighting effect . . . blending, dimming, brightening. This usage of a 115 volt, synchronous, brushless, ball-bearing type motor is another example of the versatility and adaptability of POWERSTAT lighting control equipment.

Let The Superior Electric Company intelligently assist you with your specific lighting control problems and requirements. Rely on The Superior Electric Company for the best in lighting control equipment.

Request Bulletin 748 which highlights more in detail the practical applications of motor-driven POWERSTATS . . . ideas for doing your lighting control job better.



Write The Superior Electric Company, 4078 Demers Avenue, Bristol, Conn.

THE SUPERIOR ELECTRIC CO.
BRISTOL, CONNECTICUT

Powerstat Variable Transformers • Voltbox A C Power Supply • Stabiline Voltage Regulators.

Is there a "Best Floor" for the Bathroom?

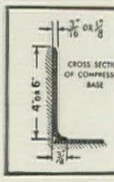


This floor, Wrightex, soft-surface Wright Rubber Tile — No. 703 Blue-cream, and No. 701 Gold-brown, with Wright-on-Top Compression Base. Photo and bathroom style — courtesy Crane Co. You'll see it in actual colors, in Aug. HOUSE BEAUTIFUL and Sept. HOUSE AND GARDEN.

We nominate WRIGHT RUBBER TILE

Compare this "candidate" with all other types of flooring. When you do, we believe you will discover that Wright Rubber Tile possesses the good features of all types of floor, and, in addition, outstanding advantages of its own.

The rich colors of Wright Rubber Tile floors laid 25 years ago — or longer — are as bright and new-looking as if laid yesterday. Free from the stains and marks of dirt, acids, and grease, their defiance to wear is notable . . . demonstrating also the unmatched ease with which Wright Rubber Tile is kept clean and lustrous. That, in a nutshell, explains its growing leadership in today's home-floor trend, and the mounting preference of architects and builders . . . reveals its enduring beauty, its real economy . . . and earmarks Wright Rubber Tile the "lifetime floor."



DON'T MISS —
Wright-on-Top, the new compression base for all type floors. Always beautiful—will not scuff or mar.

TAYLOR MANUFACTURING CO.
America's oldest maker of rubber floor tile
3062 W. MEINECKE AVENUE
MILWAUKEE 10, WIS.

WRIGHT RUBBER TILE
Floors of Distinction

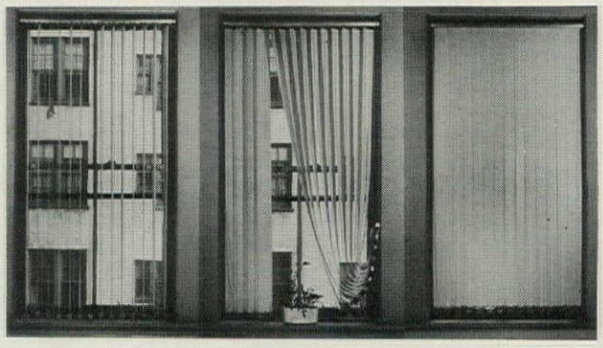
PREFIT ALUMINUM FLUSH DOOR requires minimum installation time, costs about the same as a quality wood door.

Alumidor is a strong, lightweight, noise and fire resistant, all-purpose flush door that comes completely prefit, prepared for hardware. Featuring a monolithic construction in which the aluminum surfaces and edgings are bonded together as well as being bonded to the inner core, it is said to combine the strength of metal with the lightweight and economy of wood doors. Alumidor withstands stress, weather and time and will not crack, warp, rot or sag. It is available in four styles: standard flush, with glass panel insert at top, with fixed louver in bottom and combination glass and louver panels. All doors are 1⅝ in. thick and are furnished in two heights, 6 ft. 8 in. and 7 ft., and in popular widths from 2 ft. 4 in. to 3 ft. 8 in. Finish may be satin aluminum, cold rolled Alcoa pattern sheet (neither of which require finishing) or zinc chromate primer for field painting. Price of Alumidor is about $35 f.o.b. Washington but as fitting, painting, etc. are eliminated, its final cost is said to be no more than that of a quality wood door.

Manufacturer: The Alumidor Corp., 1224 24th St., N.W., Washington, D. C.

VERTICAL FABRIC BLINDS are functional, decorative and disappearing.

Functioning as a blind, drape and curtain, this unique new vertical blind rotates a full 180° horizontally to eliminate direct sunlight, drapes gracefully to achieve decorative effects, closes tightly for privacy and rolls out of sight like a window curtain. Like venetian blinds it can be easily adjusted to



eliminate the sun's rays while allowing a good view of the outside. When tightly closed it offers complete privacy. The new blind is composed primarily of detachable, plastic coated glass cloth strips which are attached to a conventional roller by means of a swivel tape. These strips, available in eight colors, can be interchanged, washed, adjusted, draped or rolled up with little or no effort allowing unusual multi-colored and draping effects. Actually each strip in the blind is composed of two overlapping strips. These have a swivel tape attached at the top and a built-in ball and chain arrangement at the bottom connected with a flexible bottom spacer. These spacers hook together so the blind can be parted between any two strips. The blind operates by means of a continuous cord which rotates the metal-housed roller to twist the strips, raise and lower the blind. When the strips are closed they are interlocked so all strips lay parallel to the window. Further pulling of the cord rolls up the blind which is actually a continuous sheet of interlocked strips. Vertical blinds are custom made at a cost of about *(Continued on page 132)*

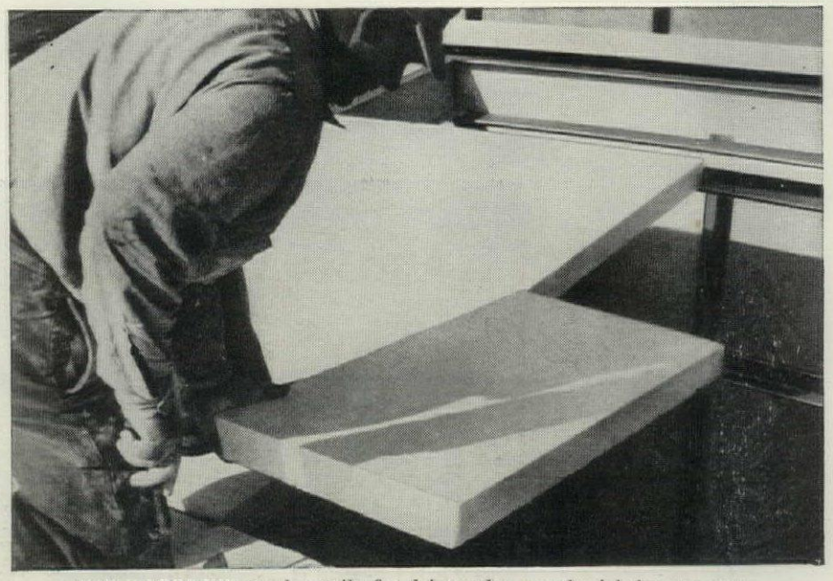
NOW!

a new, better roof deck material!

KAYLO*

*T. M. Reg. U. S. Pat. Off.

Insulating Roof Tile

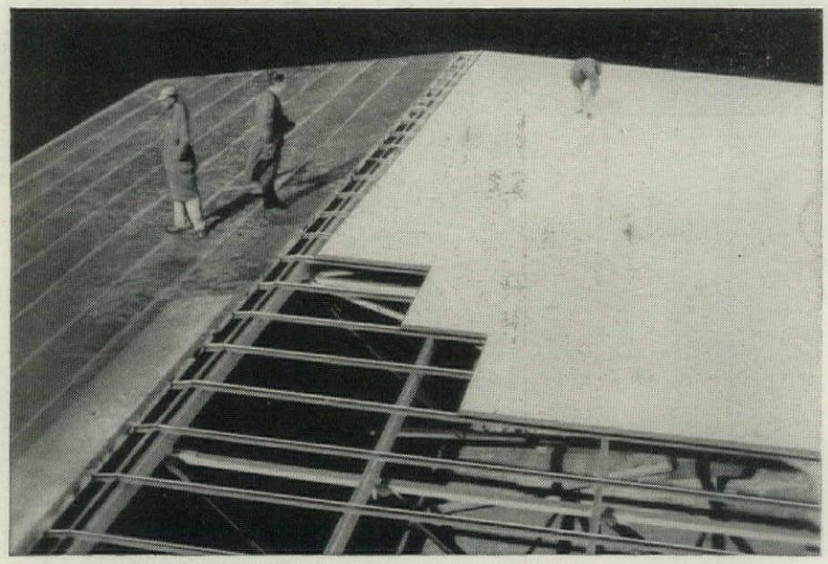


KAYLO ROOF TILE can be easily fitted into place on the job by one man.

From the laboratories of the Owens-Illinois Glass Company comes this new and different structural product.

Designed to provide both insulation and structural strength in a single material, Kaylo Insulating Roof Tile offers a unique combination of advantages to Owners, Architects and Contractors.

Kaylo Insulating Roof Tile is fireproof. It is composed entirely of inorganic materials. It is light in weight, easy to cut and fit, and structurally strong. Kaylo Roof Tiles, precast in units 2⅝ x 18 x 36 inches, are easy to handle and simple to install.



KAYLO ROOF TILE is simple to install, lightweight, saves steel.

• • •

PHYSICAL CHARACTERISTICS

WEIGHT

Density (lb. per cubic foot)	approx. 20.0
Weight per tile (lb.)	approx. 21.0
Weight per square foot (lb.)	approx. 4.5

STRENGTH

Average modulus of rupture	175 lb. per sq. inch
Average modulus of elasticity	150,000 lb. per sq. inch
Average compressive strength	500 lb. per sq. inch

INSULATING VALUE (Btu/square-foot/hour/°fahrenheit)

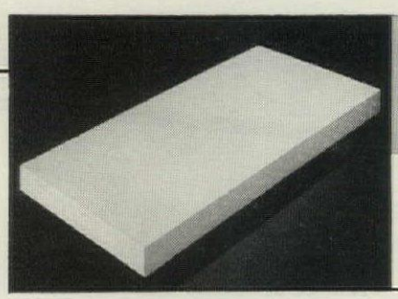
"K"—for inch thickness	0.62
"U"—for standard tile (2⅝ inch)	0.20
"U"—for standard tile plus built-up roofing	0.19

FIRE RESISTANCE

Kaylo Insulating Roof Tile is fireproof. Units tested separately have withstood building fire temperatures as defined by the standard A.S.T.M. fire curve for one hour. (This is a test of a material only and not of a construction.)

LIGHT REFLECTIVITY

Light reflection factor . . . . . approx. 80%



KAYLO*

*T. M. Reg. U. S. Pat. Off.

Insulating Roof Tile

AMERICAN STRUCTURAL PRODUCTS COMPANY

Subsidiary of

OWENS-ILLINOIS GLASS COMPANY

SEND COUPON TODAY!

AMERICAN STRUCTURAL PRODUCTS COMPANY
Dept. E-410, P.O. Box 1035
Toledo 1, Ohio

Gentlemen: Please send me, without obligation on my part, the following information on Kaylo Insulating Roof Tile:

- ☐ Construction details
- ☐ Specifications and technical data
- ☐ Sample

Name_____

Firm_____

Street_____

City_____ Zone_____ State_____

stays silent..

That's why Servel is the choice of



"AFTER 14 YEARS OF EXCELLENT SERVICE,

my tenants thank me, and I thank Servel for the Gas Refrigerator's low-cost operation and year-after-year dependability."

BASIL GAVIN, *Treasurer*
Boston Management Corp.
137-143 Park Drive
Boston, Mass.

★ **No moving parts in freezing system**
★ **Continued low operating cost**
★ **Lowest service cost**

Servel's popularity with apartment owners grows greater with each succeeding year. Today, more apartments than ever before are equipped with "no noise, no wear" Gas Refrigerators.

It's easy to see why. Apartment owners and managers, who buy refrigerators by scores and hundreds, know the great value of Servel's lasting dependability and minimum upkeep expense. They know that only Servel has no moving parts in its freezing system. This means there's no machinery to lose efficiency . . . no motor, valves, piston, or pump to ever need repair or replacement. A tiny gas flame does the complete job circulating the refrigerant that produces constant cold.

Owners and managers know that Servel pays off in tenant satisfaction, too. Families and couples living in apartments greatly appreciate Servel's permanent silence and trouble-free service. And they like its up-to-the-minute cabinet, with its spacious frozen food compartment, moist cold, dry cold, big flexible interior, and many other modern features.

Servel is made in three sizes—6- and 8-cu.-ft. models for large apartments . . . and the compact, but roomy, 4-cu.-ft. size for smaller apartments. For complete information, see Sweet's Catalog . . . or write to Servel, Inc., Evansville 20, Indiana.

Servel

lasts longer!

apartment owners year after year

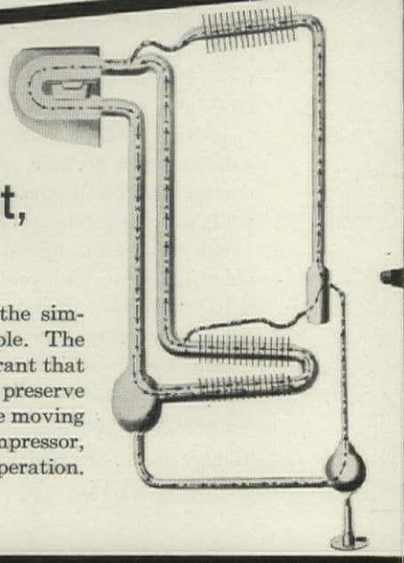
"OUR NEW MODERN GARDEN APARTMENTS

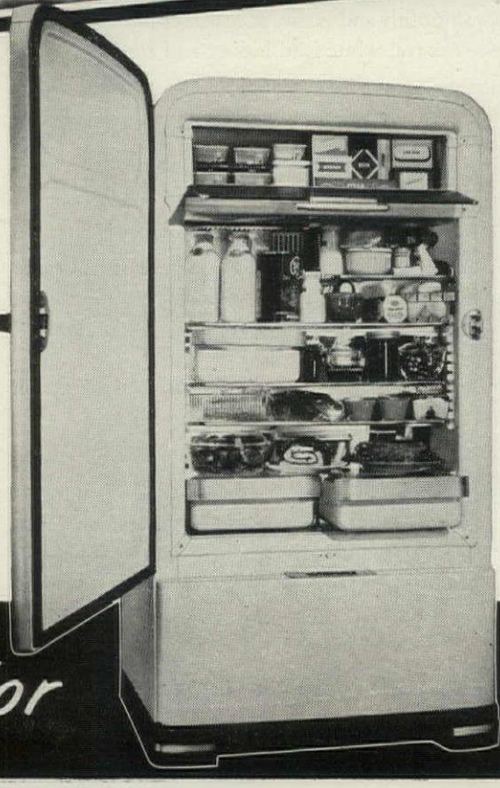
deserved all the features of modern refrigeration. That's why—after considering 6 different makes—I chose the Servel Gas Refrigerator."

L. Robert Rolde

L. ROBERT ROLDE,
Meadow Brook Apartments
Quincy, Mass.







Here's why Servel stays silent, lasts longer

The Gas Refrigerator operates on the simple, continuous absorption principle. The small gas flame circulates the refrigerant that supplies the constant cold needed to preserve food and make ice cubes. Not a single moving part (no motor, no pump, no compressor, etc.) is used in the entire freezing operation.

The GAS Refrigerator



Eagle RTU is *pure white lead.* It has all the famed durability, beauty and economy of this most famous of painting materials.

And, Eagle RTU comes factory-mixed for perfect brushing. It goes to the job in the original container, all set to open, stir and apply.

Eagle RTU spreads smoothly and easily. It covers completely, leaving no brush-marks, has real white lead hiding and staying power.

And, Eagle RTU makes a smooth, gleaming elastic coat that won't crack or scale . . . defies time and weather, ages evenly by gradual chalking.

Eagle RTU is favored by builders for time and labor saving convenience . . . because it enables them to do a *better* job more efficiently.

And, Eagle RTU is preferred by homeowners because of its beauty and durability . . . because of its *whiter* white that stays white *longer.*

Eagle RTU is white lead paint in a *modern* form.

And, Eagle RTU is backed by Eagle-Picher's 104-year-old reputation as well as by the 2,000-year-old reputation of white lead.

EAGLE PURE WHITE LEAD *Paint*

EAGLE EP PICHER Since 1843

THE EAGLE-PICHER COMPANY
CINCINNATI (1), OHIO
Member of the Lead Industries Association

$1 to $1.50 per sq. ft., can also be fabricated for use as partitions or stage curtains.

Manufacturer: Vertical Blind Co., Inc., 10 E. 8th St., New York, N. Y.

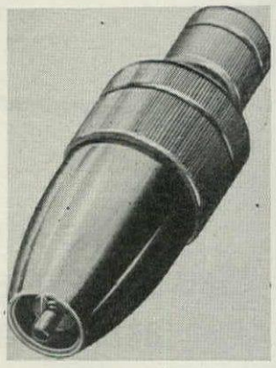
"REMOTE CONTROL" WIRING SYSTEM eliminates large expense in multiple switch lighting controls.

General Electric Co. has begun distribution of their low voltage wiring system, which is designed to increase the number of switch locations from which it is practical to control any light or outlet in homes, farms, offices, and factories. The new system, dubbed "remote control" by the company, drops voltages with a small transformer, so that the company's new lightweight insulated 22 gauge wire can be used safely. With savings in cost and insulation of the light wire, it becomes practical to use many more controls for one light, scattered through the room or building. A newly designed push switch activates 25 v. relays mounted at the lights or outlets, and the relays turn the lights on or off. Because of its low voltage, the system is not subject to the same code restrictions as the conventional system. Installation is simplified, and the wires can be short-circuited at any point without danger of excessive heat, or fire.

Manufacturer: General Electric Co., 1285 Boston Ave., Bridgeport 2, Conn.

SELF-CLEANING SHOWER HEADS save water, eliminate maintenance expense.

Presto shower heads are streamlined, self-cleaning units which produce a controlled spray, save hot water and eliminate maintenance. Bullet-shaped, they have no face plates, cylinders or working mechanisms to lime up and stick but incorporate a simple plunger that vibrates when the shower is in operation to keep both itself and its supporting orifice free from lime deposits, sand, grit, corrosion and rust. According to the manufacturer, Presto's operating principle also saves water. The head is said to throw only 2¾ gals. of water per min. with control valves half open and 40 lb. water pressure, as compared with 8 gals. emitted by old style heads. With control valves fully open, it is reported to use only 4 gals. of water per min. as compared to 12 gals. used by old style heads. Presto is supplied in several models to suit various types of shower installations. Illustrated chrome-plated Presto with adjustable ball joint retails for $1.59.



Manufacturer: Repcal Brass Mfg. Co., 2109 East 27th St., Los Angeles, Calif.

PORTABLE COPPER TUBE BENDER facilitates bending radiant heating coils.

Tal Bender's new lightweight portable copper tube bender will bend both un-annealed hard and soft copper tubing (types K & L) to a perfect 180° return bend. It enables the operator to work with a con- *(Continued on page 136)*

Modern drama:

Barker Bros.' new 5th floor

Leading rolls:

Bigelow Carpets



When Los Angeles' Barker Bros. remodeled their famous store, they followed what is practically a tradition among America's leading stores, and ordered Bigelow Carpet throughout.

For general beauty and long wear: Bigelow's classic Gropoint, the top commercial-choice carpet with its uncut surface that resists shading . . . never tattles about traffic lanes.

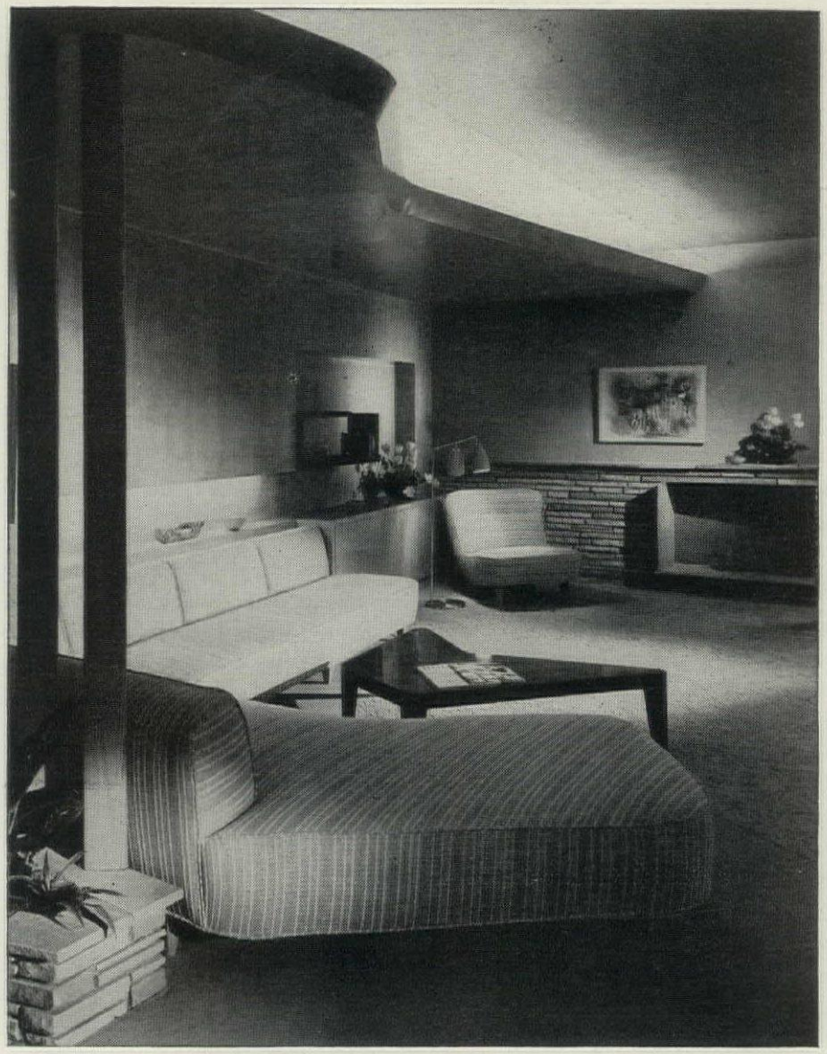
For special drama in decorator room-settings: such Bigelow beauties as Contempora . . . Sonata . . . Ceredo.

Most stores, hotels, and other business establishments find it easy to fill their needs from the regular Bigelow line.

When *you* have occasion to plan a carpet installation, you may well find *your* problem as simple as fingering a Bigelow swatch-book.

Bigelow's own Carpet Counsel is always available to help you with *any* problems, from the smallest to the largest. Our experts will help you make your carpeting dollars go farthest . . . with advice on most suitable types of carpets, designs, and colors.

Bigelow will custom-plan special orders—from original design to final installation. One of our 26 Carpet Counsel offices is near you—waiting for your call.



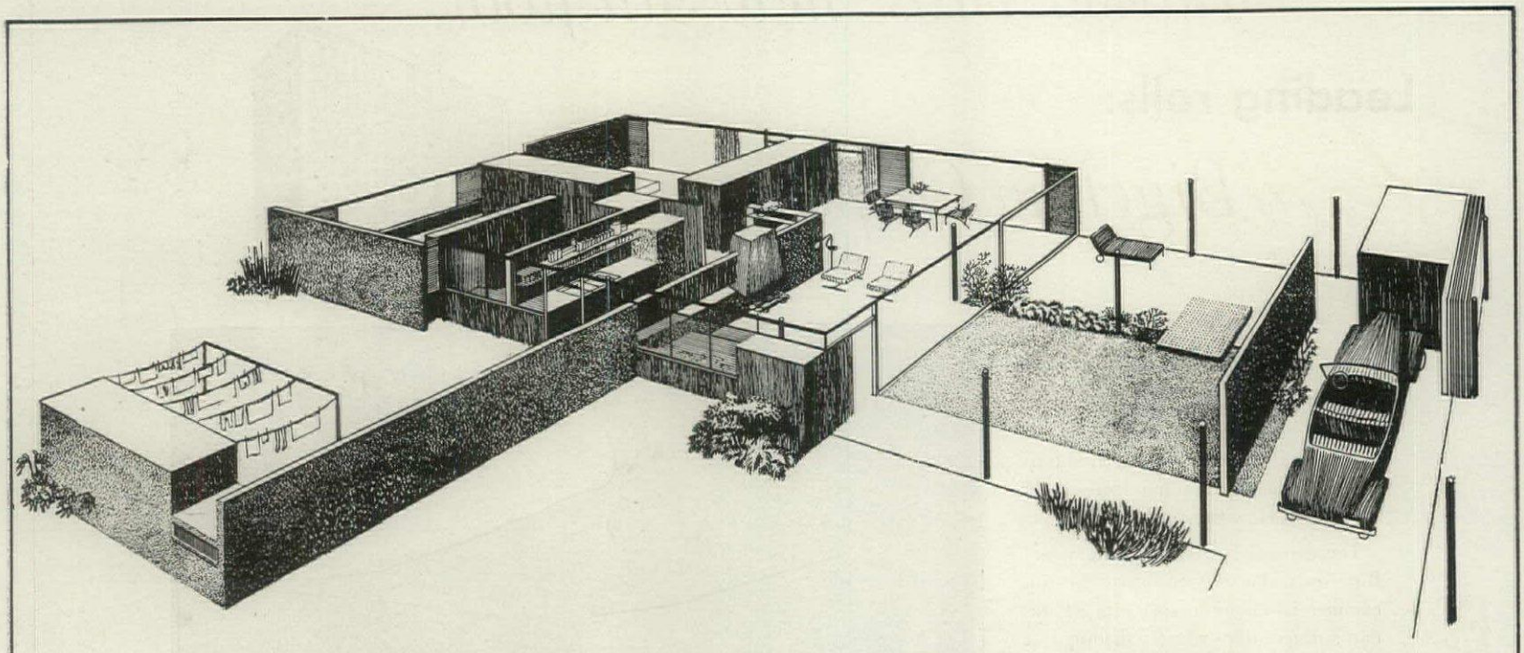
A corner of Barker Bros.' remodeled 5th floor. Setting by Greta Grossman. Luxurious textured Contempora carpet by Bigelow.

RUGS & CARPETS BY
BIGELOW WEAVERS
Woven on Power Looms in U.S.A.

Bigelow Rugs and Carpets

Beauty You Can See . . . Quality You Can Trust . . . Since 1825

YES...There are Associate Memberships in the Revere Quality House Institute!



Rendering of the Revere Quality House in Sarasota, Florida, designed "For a Vacation at Home, Florida Style."

ARCHITECTS and BUILDERS are assured that provision has been made for the admission of Associate Members in the Revere Quality House Institute. Thus it will be possible for qualified individuals and firms to participate in this constructive effort not merely to improve the quality of the average moderate-priced house, but to assure the buying public that true value for the money is there.

The Institute's program is now well launched. The first Revere Quality House was opened in Houston on June 6. The second is scheduled for July, in Sarasota, Florida. The third will be shown on an August date in Springfield, N. J. In each case local and national publicity is employed, including 2-page advertisements in the Saturday Evening Post, each featuring a house. In all, eight such houses will be built this year by the eight architect-builder teams constituting the Institute.

Thus the Institute seal takes on added prestige and importance daily. Public demand grows. People ask "Where can I buy a Quality House?" and they are told that these houses are designed by local architects, erected and sold by local builders subject to Institute supervision of plans and specifications. The Institute does not build or sell Quality Houses. Members and Associates can do so. Write for full information.

• • •

FOR DETAILS OF ASSOCIATE MEMBERSHIP, WRITE to:

REVERE QUALITY HOUSE INSTITUTE
John Hancock Callender, *Architect*
Executive Secretary
P. O. Box 1134, Grand Central Station
New York 17, N. Y.

SPONSORSHIP

The Revere Quality House Institute is sponsored by Revere Copper and Brass Incorporated and by The Architectural Forum in a spirit of public service. It is operated on a non-profit basis. Revere does not control the Institute nor influence the choice of materials used in Quality Houses. However, it is obvious that quality materials include many of copper and brass. All inquiries about the Institute should be addressed to the Institute itself.

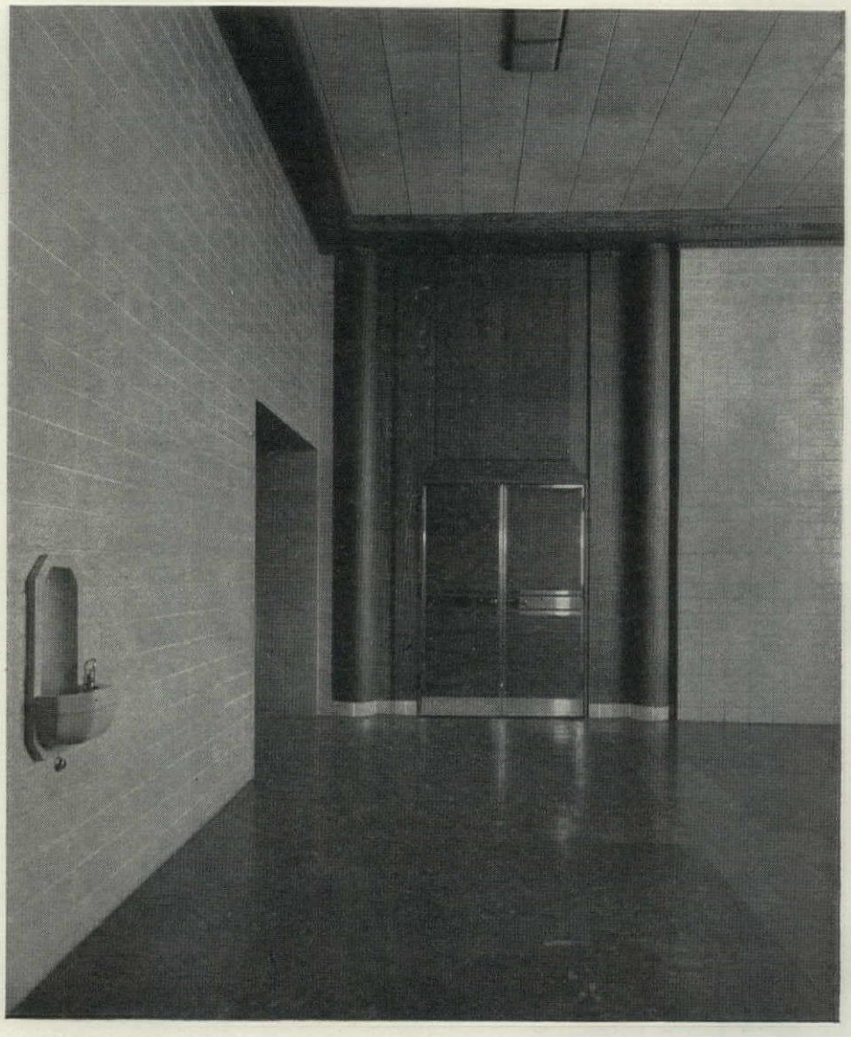
REVERE
COPPER AND BRASS INCORPORATED
Founded by Paul Revere in 1801
230 Park Avenue, New York 17, N. Y.



THIS BOOKLET IS BEING WIDELY DISTRIBUTED TO THE PUBLIC IN RESPONSE TO INQUIRIES. SEND FOR A COPY

"Let the public be served"

Facing tile for PUBLIC BUILDINGS



Let the public be served in buildings worthy of their purpose. Let the interiors be light and cheerful!

Let these centers of community activity have dignity—utility—permanence!

With Structural Clay Facing Tile you achieve all of this. You can put infinite variety into the design and color of Libraries, Courthouses, Museums, Recreation Centers... give them interesting, attractive, efficient interiors... make them buildings people like to be in.

And, in the final accounting, Facing Tile means real economy for the public. It *goes up fast and it's built to last.* It's a wall and a surface finish *in one!* It's fireproof, extremely strong structurally, can withstand the heaviest traffic year after year and stay like new. It will not crack, scratch or decay. Maintenance costs no more than simple soap-and-water cleaning. Refinishing is never necessary.

Facing Tile is available, glazed or unglazed, in efficient modular sizes, in a wide variety of light-reflecting colors. Contact any Institute member or see Sweet's Architectural Catalog for additional data.

SEND FOR MODULAR FACING TILE HANDBOOK

Free to registered architects and engineers. Write Desk AF-7 of the Institute on your letterhead. Fifty cents to others.

FACING TILE INSTITUTE

1756 K STREET, N. W. • WASHINGTON 6, D. C.

INSTITUTE MEMBERS

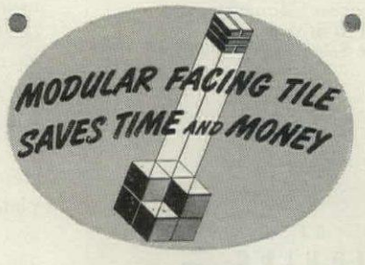
Belden Brick Company, Canton, Ohio

Continental Clay Products Co., Kittanning, Pennsylvania

Charleston Clay Products Co., Charleston 22, West Virginia

Hanley Company, New York 17, N. Y.

Hydraulic Press Brick Co., Indianapolis, Indiana



Mapleton Clay Products Co., Canton, Ohio

INSTITUTE MEMBERS

Metropolitan Paving Brick Co., Canton, Ohio

National Fireproofing Corp., Pittsburgh 12, Pennsylvania

Stark Brick Company, Canton, Ohio

Standard Clay Manufacturing Co., New Brighton, Pa.

West Virginia Brick Company, Charleston, West Virginia

Fireside-
Furrier-
Factory-
each fares *better* with
TRANE
heating and
air conditioning

domestic



The builders of these beautiful apartment buildings wanted to give tenants the best possible heating, yet costs *had* to be held down. Trane Convector-radiators were selected for their economy, ideal heating, and individual fingertip control.

commercial



The operators of this large and famous fur store wanted air conditioning for their five-story building, and cooling for their fur storage vaults. They found that a Trane system could be fitted into the building to give them exactly the right conditions.

industrial

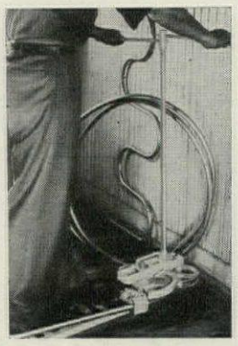


When this new plant for producing "juke boxes" was built, large glass areas were installed to provide plenty of light. The huge windows and the skylighted saw-tooth roof presented a heating problem, but a Trane system cut drafts, reduced wasted heat, and gave workers comfort.

There is a Trane System to solve every kind of heating and air conditioning problem efficiently, whether it be comfort or process—domestic, commercial, or industrial. Trane Systems are designed to fit your application by architect, engineer, or contractor. 200 Trane Sales Engineers offer their counsel. *Users' names on request.*

TRANE
MANUFACTURING ENGINEERS OF
HEATING and AIR CONDITIONING systems
THE TRANE COMPANY, LA CROSSE, WISCONSIN
ALSO, TRANE COMPANY OF CANADA, LTD., TORONTO

tinuous coil almost flush to the wall, and to drop the finished bend out of the machine on the desired spot. The new bender is available in suitable radii from sizes 3/8 in. to 1 in. Change-over of formers and rollers from one size to another on the job (according to the manufacturer), takes but 40 seconds.



Manufacturer: Tal Bender, Inc., 417 N. Water St., Milwaukee, Wis.

BATHROOM ACCESSORY includes compartments for smoking and reading material.

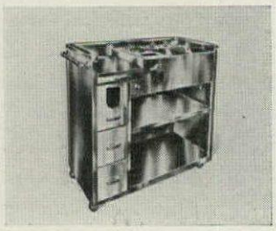
Constructed of heavy gauge steel and easily installed, this new bathroom accessory combines two shelves for smoking equipment and a magazine rack with the paper holder fixture. The exterior frame, which measures 15 x 20½ in. is chrome plated. Interior is finished in neutral colored, baked enamel. Recessed box measures 12 x 17¼ in., list price is $16.95. A smaller size unit which eliminates the magazine shelf is also available, retails for $7.95.

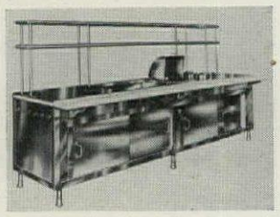


Manufacturer: House of Hospitality, Box 254, N. Hollywood, Calif.

PORTABLE BAR and CHEF'S WORK TABLE are constructed for maximum efficiency, easy maintenance.

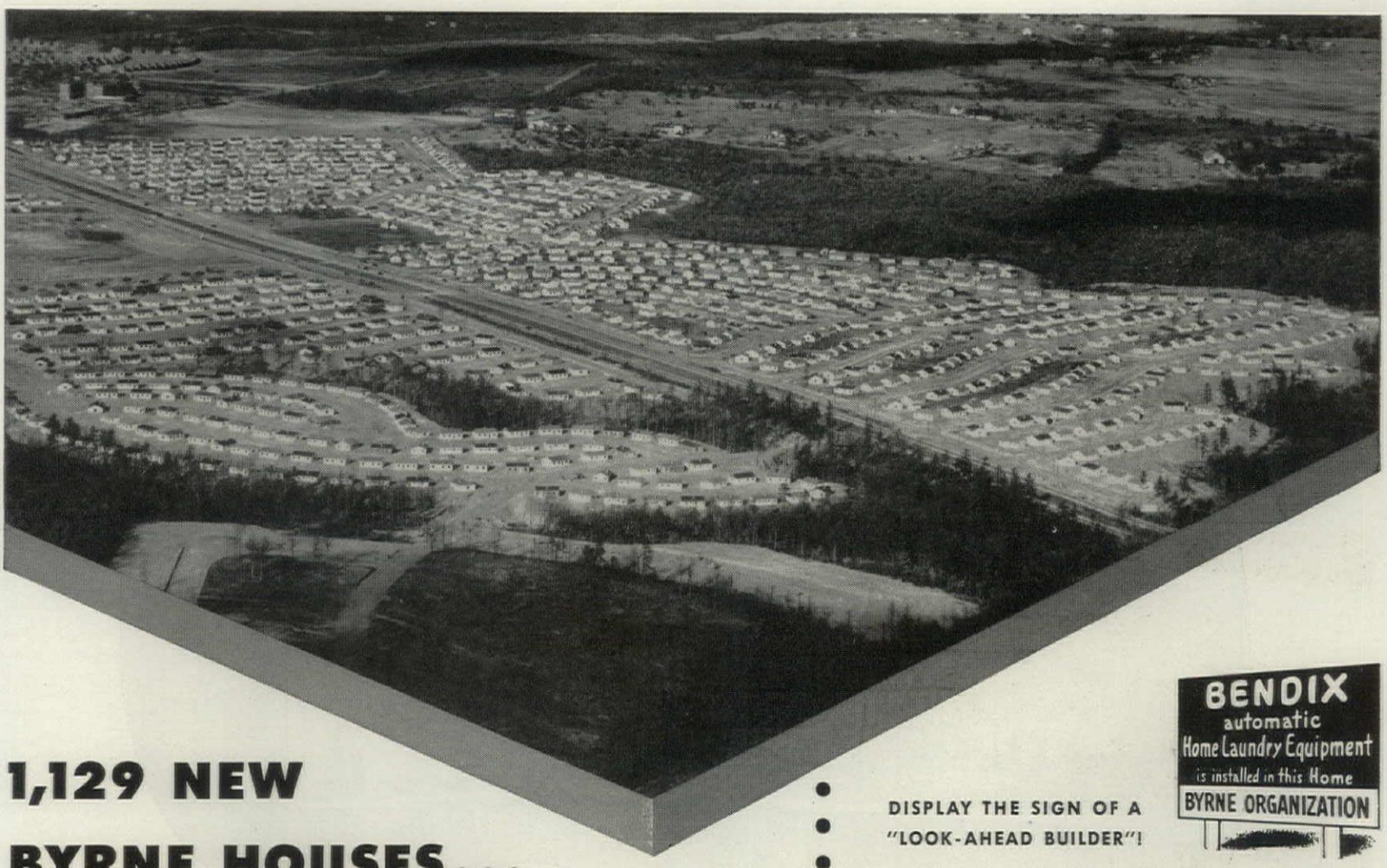
These two stainless steel products—a portable cocktail bar and a chef's work table—are built for maximum efficiency with the least expediture of effort. The utility bar, sturdily constructed and mounted on 4 in. rubber-tired wheels, is of convenient size to move about yet provides ample room for serviceability. It includes an insulated ice-cooled cocktail section and two cracked ice storage pans, work space, disappearing cutting board, lemon drawer, three storage drawers and towel ring. It has a push bar handle, measures 21 in. wide, 42 in. long and 40 in. high. The all stainless steel chef's work table is recommended for use where sanitary, efficient operation is desired. Reinforced for sturdiness and durability, and mounted on chrome plated adjustable legs, it has a heavy polished stainless steel top with an integral stainless steel *bain marie* section. The upper shelves are heavy stainless steel with rolled edges and bullnozed corners. The plate warmer compartment is equipped with removable shelves and heavy, removable sliding doors on both sides of the unit. This table is available for heating by gas, steam or electricity, is made in sizes to fit any requirements.





Manufacturer: Heifetz Metalcraft Co., 10 Hudson Ave., Edgewater, N. J.

(Continued on page 140)



1,129 NEW BYRNE HOUSES... AND A BENDIX WASHER OFFERED WITH EACH ONE!*

BENDIX automatic Home Laundry Equipment is installed in this Home BYRNE ORGANIZATION

DISPLAY THE SIGN OF A "LOOK-AHEAD BUILDER"!

*Harundale, Byrne Organization development, near Baltimore. Two-bedroom houses (676 sq. ft.) are priced at $8950. Three-bedroom houses (988 sq.ft.) are priced from $10,300. $65 FHA monthly installments include price of Bendix Washer. Byrne is also building similar projects in Moline and Peoria, Illinois.

Imagine . . . a Bendix automatic Washer offered — under FHA — to every house in town!

That's what you'll find in Harundale*—the tremendous development near Baltimore planned and erected by Byrne Organization — top-notch Washington builders.

The reasons why are simple. As a spokesman for Byrne pointed out: "The Bendix was selected because of the convenience it offers the home-buyer. The Bendix saves space — saves time. And it saves many weary hours of drudgery. Moreover, it can be bought on an FHA package mortgage — along with the house!"

These houses were planned from the blueprint stage to include an automatic Home Laundry. Naturally Bendix was selected, because it offers more — costs less — and has the best record. That's why these Byrne houses are worth more to the home-buyer . . . not only now, but in the future. They're planned for easier living!

Like so many, many big-name builders all over America — Byrne Organization looks ahead — builds its reputation for giving more for the housing dollar today. If you are planning any development at all — small or large — you'll do well to check up on the reasons why it pays to plan for a Bendix installation!

BENDIX HOME APPLIANCES, INC., SOUTH BEND 24, INDIANA

Also makers of the new Bendix Dryer and Bendix Ironer



BENDIX automatic Washer

Your customers live better with Bendix!

It's surface smooth

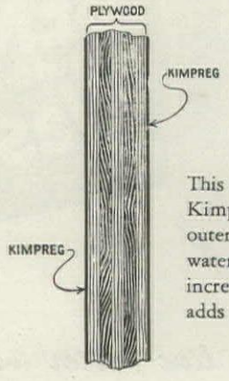
—thanks to Kimpreg* + Plywood concrete forms



The new Kraft distributing branch – at Louisville, Kentucky. Note the exceptional smoothness of the architectural concrete. Credit goes to Del E. Webb Construction Co. and Kimpreg-surfaced plywood panels.

Surfaces are smooth, attractive. Kimpreg* plastic surfacing is a hard, flint-like material that is bonded to plywood in manufacture. Its phenolic resin facing produces a remarkably even, long lasting concrete finish. Lessens rubbing down labor.

Maintenance expense cut. Plywood forms protected with Kimpreg resist the abrasion of sand, gravel and cement. On the Kraft project, these panels used a minimum of oil. They stripped fast – cleaned quickly. Light in weight and durable, they were easily moved, safely shipped to another job.



This sectional view shows how Kimpreg surfaces are fused to the outer layers of plywood. A tough, water-resistant sheathing, Kimpreg increases the abrasion resistance—adds to the life of plywood.

Ultimate cost of the forms reduced. Handled with reasonable care, Kimpreg-surfaced plywood panels can be re-used many, many times. They're unaffected by rain, or snow, or temperature extremes.

Panels are easily constructed. These versatile panels can be sawed, drilled or nailed to erect any size form desired. They're available through your local plywood jobber; are also sold by individual plywood manufacturers under the trade name Laminex, Inderon and Westboard Industrial Plastic. For full information, write us on your business letterhead.

KIMBERLY-CLARK CORPORATION
Plastics Division Neenah, Wisconsin

Kimpreg
REG. U.S. PAT. OFF.
PLASTIC SURFACING

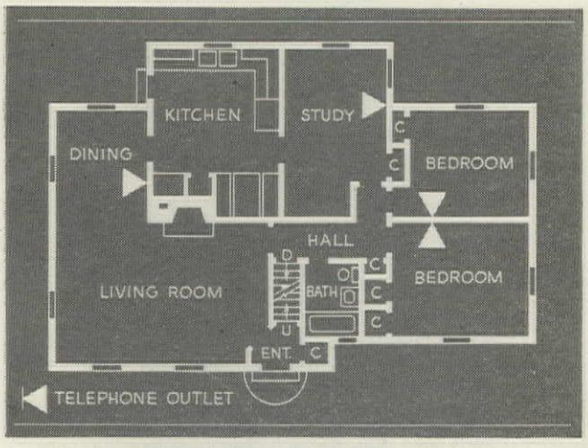
A PRODUCT OF Kimberly Clark RESEARCH

*TRADEMARK Reg. U. S. Pat. Off.



George R. Paul, Architect

IT HAS EVERYTHING . . . INCLUDING TELEPHONE RACEWAYS



Nowadays even the smaller homes have telephone raceways. When telephones are installed, these raceways assure the owners of telephone convenience without exposed wires on walls and woodwork.

Installed during construction, telephone raceways cost little extra. In one-story homes without a basement, a few pieces of pipe or electrical tubing under the floor or above the ceiling will provide a clear path for telephone wires to outlet locations.

For small or large homes, your Bell Telephone Company will be glad to help you plan modern telephone arrangements. Just call your telephone Business Office and ask for "Architects and Builders Service."

BELL TELEPHONE SYSTEM



Birmingham Hospital Center in England has Crittall warm water coil radiant heating throughout. Lanchester, Lodge & Davies, FF.A.R.I.B.A., Architects. Henry Lea & Sons, Consulting Engineers.

For Truly Healthful Comfort at Low Fuel Cost Per Year

Crittall radiant heating with concealed warm water coils is ideal for *all* buildings that must be supplied with healthful, comfortable, economical warmth; and the economy is quite remarkable, for Crittall radiant heating often enables fuel savings of 25% to 40%.

Compared with other high grade heating systems, Crittall radiant heating is competitive in first cost for well-designed modern buildings. Moreover, the fuel savings effected by radiant heating ordinarily pay off any difference in first cost in a relatively short time. And there's this to remember—you save on first cost only once, but you save on fuel every year . . . for year after year.

To be sure you get real, fuel-saving radiant heating, entrust design and installation to those whose specialized knowledge and experience are ample and beyond question.

Electrical Radiant Heating Panels — Crittall offers immediate shipment on Medrae electrical radiant heating panels . . . "packaged sun-warmth" . . . economical and safe for auxiliary heating. Easy to install. Plug-in portable models available.

Consult CRITTALL on Radiant Heating

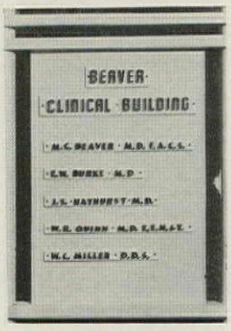
Now, through your architect and engineer, you may have the benefit of Crittall's more than 40 years of world-wide experience in the design and installation of radiant heating systems. Write to Crittall when you have a project in hand.

RICHARD CRITTALL
Radiant Heating, Inc.
665 FIFTH AVE., NEW YORK 22, N. Y.—Plaza 9-3316
Richard Crittall Radiant Heating (Canada), Ltd.
215 St. James St. West, Montreal — Lancaster 9171

BUILDING REPORTER

THREE DIMENSIONAL DISPLAY LETTERS in numerous styles and sizes create effective signs.

Usable on a variety of backgrounds including glass, wood, metal and cloth, Mitten's well designed, easy to read, three dimensional display letters produce attractive indoor and outdoor signs, merchandising displays and name panels. With the 12 available styles which range in size from ¾ to 9 in. high with relief depths from ⅜ to 1 in., many interesting effects are achievable. All styles can be used harmoniously together giving a full range of sizes, upper and lower case, italics, etc. Mitten Letters come in three versatile types: pin back for use on wood or soft materials, sanded back for cementing on hard surfaces with rubber cement or glue and track letters which stand in Mitten display tracks. Inexpensive and clean cut, all letters blend with any type of architecture and can be used over and over if desired. The display units are pure white, made of Seramik Tile, but may be easily tinted, painted or lacquered.

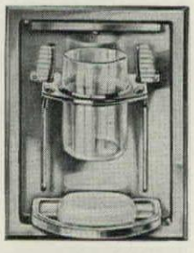


Manufacturer: Mitten's Letters, 222 West 5th St., Redlands, Calif.

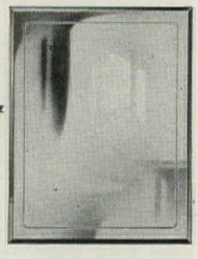
TILE HOUSE NUMBERS are permanent.

Cambrite Model 33 tile house numbers are permanent, non-rusting, non-fading, and non-staining, 2 x 3 in., units for numbering building projects, *(Continued on page 144)*

1 *now you see it*



2 *now you don't*



Soap, tumbler and tooth brushes out of sight when not in use, avoiding unsightly, unsanitary exposure. Solid brass chromium plated panel revolves in seamless housing. No. 338, Concealed Lavatory Unit. (U. S. Patent No. 2,039,065.) See Sweet's for complete line of quality bathroom accessories.

HALL-MACK COMPANY
1344 W. WASHINGTON BLVD., LOS ANGELES 7, CALIF.
7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS



CENTRAL PLANT AIR CONDITIONING
with the features you dream about

TO eliminate costly application problems and installation bugs in central plant air conditioning, G-E engineers arranged countless discussions with architects and contractors in the air conditioning field. The results of this intensive field work went into the construction of the new G-E Central Plant Air Conditioners.

Time Saving . . . Space Saving

Compact and light in weight, these units are pre-engineered, pre-fabricated and parts pre-matched for speedy installation. Expensive building alterations—cutting and patching—are avoided because each sub-assembly has ample clearance to pass easily through a standard 30" door. You'll find 12 assembly arrangements available for vertical or horizontal installations—virtually eliminating the bugaboo of space problems.

The new vertical or horizontal combinations both share equally the built-in G-E qualities which give quiet, smooth operation . . . dependable, consistent performance. Why not discuss them with your local G-E air conditioning representative *today? General Electric Company, Air Conditioning Department, A8137, Bloomfield, New Jersey.*

Look at these Dream Points!

- **Pre-matched components**
- **Pre-engineered**
- **Quick, easy selection**
- **Accurate, reliable G-E ratings**
- **No expensive rigging**
- **No wall knockdowns—(Every part will go through standard 30" doorway)**
- **Attractive appearance (No shielding or furring)**
- **No field fabrication of parts**

GENERAL ELECTRIC

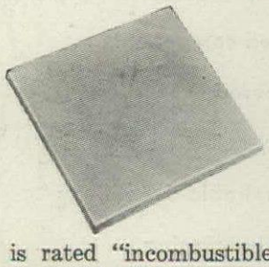
Better Air Conditioning



Office of James A. Hart, Hotels Ambassador, Chicago

FIBERGLAS*

...the firesafe featherweight that soaks up noise



Besides having high coefficients of sound absorption, Fiberglas Acoustical Tile delivers a combination of bonus features not available in any other material.

It is, for example, the lightest weight firesafe acoustical tile made. Fiberglas Acoustical Tile is rated "incombustible" under Federal Specification SS-A-118—the standard specification test on which all state and municipal building officials have based their approvals. The tile weighs less than a pound per square foot in 1" thickness.

The importance of firesafety in acoustical tile cannot be exaggerated. Besides contributing to the over-all safety of the building, it may affect insurance rates and simplify precautionary measures, such as sprinklers, prescribed by building codes.

Because Fiberglas Acoustical Tile will not swell or shrink, it will not warp or buckle. Because of this and its light weight, Fiberglas Acoustical Tile is ideal for use with mechanical systems in suspended ceilings. It is easily installed with standard adhesives, and it stays put. The face and beveled edges of the tile are attractively finished and provide good light reflectivity—an aid to over-all illumination.

Fiberglas Acoustical *Board*—a long-span acoustical unit—is ideally suited to ceiling applications in conjunction with recessed type continuous row fluorescent light troffers. It provides the same desirable combination of advantages found in Fiberglas Acoustical Tile and is available in sizes and styles to meet all design requirements.

For top performance, appearance and safety, specify Fiberglas Acoustical Tile or Board. Approved applicators in principal cities. For complete information and specifications, write Owens-Corning Fiberglas Corporation, Dept. 830, Toledo 1, Ohio. Branches in principal cities.

In Canada: Fiberglas Canada Ltd., Toronto, Ontario.

*Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) for a variety of products made of or with glass fibers by Owens-Corning Fiberglas Corporation.

OWENS-CORNING

FIBERGLAS

REG. U.S. PAT. OFF.

BUILDING MATERIALS

BUILDING INSULATION · ACOUSTICAL TILE AND BOARD · ROOF INSULATION · MEMBRANE FABRIC · ALSO BASIC MATERIALS FOR SIDING, ETC.

OUR BUILDINGS SHOULD SHED RAIN

like water off a duck's back!



A bad storm spells danger to unprotected walls and contents. Your structures should be protected by Waterfoil—the raincoat for buildings. Waterfoil consists of irreversible inorganic gels which harden to bond chemically and physically to concrete, brick or stucco and help prevent rusting of re-enforcing bars, spalling or disintegration. Save the costly buildings you now own. Write for important literature on protecting your property investments.

WATERFOI

THE UNIQUE TREATMENT FOR EXTERIOR MASONRY SU

SUBSIDIARY OF Sun CHEMICAL CORPORATION

A. C. HORN COMPANY, INC.

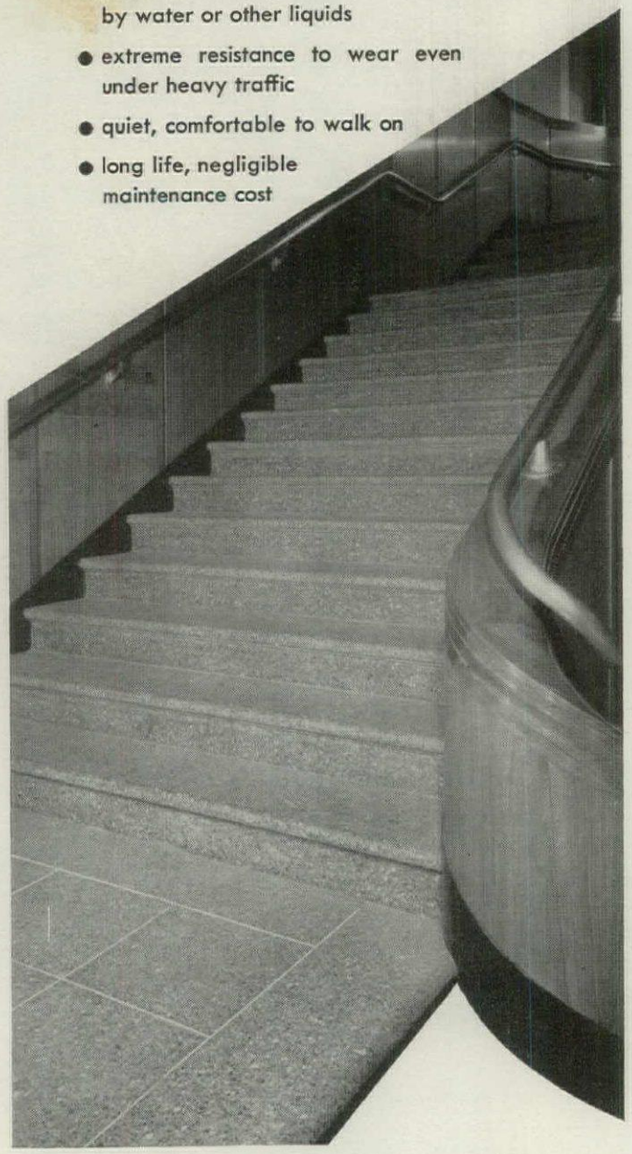
manufacturers of materials for building maintenance and construction

10th STREET & 44th AVENUE, LONG ISLAND CITY 1, NEW YORK · HOUSTON · CHICAGO · SAN FRANCISCO

On these stairs . . .
Never a slip, no sign of wear
because they're made of ALUNDUM Terrazzo Aggregate

advantages:

- permanent freedom from the slipping hazard
- positive non-slip protection . . . unimpaired by water or other liquids
- extreme resistance to wear even under heavy traffic
- quiet, comfortable to walk on
- long life, negligible maintenance cost



Norton non-slip floors are made of hard, tough ALUNDUM* (aluminum oxide) abrasive and they are available in four distinct forms:

- ALUNDUM Terrazzo Aggregate
- ALUNDUM Cement Floor Aggregate
- ALUNDUM Stair and Floor Tile
- ALUNDUM Ceramic Mosaic Tile

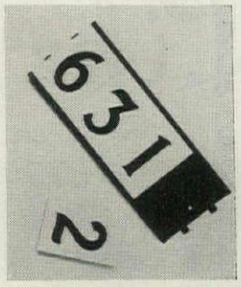
SEE OUR CATALOG IN SWEET'S (SA and SE)

NORTON COMPANY, WORCESTER 6, MASS.

Trade-mark Reg. U. S. Pat. Off.

sheds, power lines, hotels, schools and stadiums. Made from real clay with beveled edges, each tile features a black numeral which is said to be permanently sealed under a clear white glaze. Tiles fit in black japanned aluminum frames. These are supplied in sizes holding from one to five numbers.

Marsh Studios



Manufacturer: The Cambridge Tile Mfg. Co., Dept 12, Caldwell Drive, Cincinnati 15, Ohio.

HOME FIRE ALARM SYSTEM is low cost.

A new easily installed home fire alarm system which sells for $24.75, the Fire Tattler is said to provide complete coverage for a house containing up to 2,000 sq. ft. The system consists of an alarm unit, eight fire detectors, wire and accessories. The 7 in. alarm unit containing a loud automobile-type horn, relay and transformer, is hung in any room and plugged into the nearest 110 v. electric outlet. Insulated wire connects this alarm with the fire detectors, fusible metal elements mounted in plastic housings, which are placed in locations where fire danger exists. In case of a fire the element melts before heat in the danger area reaches 170° F., breaks the circuit and sounds the alarm horn. According to the manufacturer, the Fire-Tattler's cost is not only low but operation is also inexpensive as the system requires only about the same amount of current as a large flash-light.

Manufacturer: Ingersoll & Co., 502 N. Prior Ave., St. Paul, Minn.

(Technical Literature, page 148)

How to Give Office Hours Extra STYLE and COMFORT



BLENDED, combination heating plus space-saving beauty which can't be matched — that's what Modine Convector Radiation now offers you. In addition, you get individual room control, dependable heating comfort, distinctive style, cleanliness and long service. If you're planning to build or remodel an office, building, laboratory or showroom, specify Modine Convector Radiation. Look for Modine's representative in the "Where-to-Buy-it" section of your phone book, or write for free literature.

MODINE MANUFACTURING COMPANY
1507 Dekoven Ave., Racine, Wis.



How to choose water coolers for cost-conscious clients

Expect hearty approval from cost-conscious clients — when you specify Frigidaire Water Coolers. For they save money *all three* ways:

Save on first costs because Frigidaire offers a complete line of products. That means you can find exactly the right types and sizes needed for the job—never waste money on too much or too little capacity.

Save on operating costs because Frigidaire Water Coolers are products of *great* engineering by Frigidaire and General Motors; are made to the most exacting standards in the industry. They run on a minimum of current, serve your clients years longer than ordinary coolers.

Save on maintenance costs because Frigidaire's well established corps of engineering dealers can render prompt, economical service wherever your clients are — if a mechanical adjustment should ever be necessary.

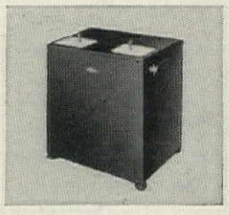
For full facts about Frigidaire Water Coolers, call your Frigidaire Dealer. Find name in Classified Phone Directory. Or write Frigidaire Division, General Motors Corporation, Dayton 1, Ohio; Leaside 12, Ontario.

For economy plus dependability—Specify FRIGIDAIRE WATER COOLERS



Frigidaire Pressure-Type Coolers

Attractive, heavily insulated cabinets contain entire cooling system, matched to operate as a unit. Famous Meter-Miser uses just a trickle of current. Bubbler and bubbler valve form single sanitary unit. Easy-acting push button valve. Freon-12. Five sizes.



Frigidaire Industrial-Type Coolers

For heavy duty. Interior of cabinet heavily insulated for dependable operation even at extreme room temperatures. Heavy-duty, economical reciprocating compressor matched to efficient cooling unit and control valve. Freon-12 refrigerant. Two sizes.



Frigidaire Bottle-Type Cooler

Heavily insulated cabinet contains entire cooling system, matched to operate as a unit. Meter-Miser rotary compressor. Just one plug-in electrical connection. Freon-12.



Frigidaire Tank-Type Coolers

For central systems. Heavy insulation with efficient cooling unit and refrigerant control matched to powerful Frigidaire compressor. Freon-12. Can be suspended or concealed almost anywhere. Three sizes.

You're twice as sure with two great names FRIGIDAIRE made only by GENERAL MOTORS

METER-MISER AND RECIPROCATING TYPE COMPRESSORS • DISPLAY CASES • REACH-IN REFRIGERATORS • BEVERAGE, WATER AND MILK COOLERS • ICE CREAM CABINETS • HOME AND FARM FREEZERS • AIR CONDITIONING • ELECTRICAL APPLIANCES FOR THE HOME



This metal label is fastened to the top edge of every Weldwood Fireproof Door.

Picture shows absolute protection afforded by Weldwood Fireproof Door. After withstanding an intense fire for sixty minutes, the Weldwood Fireproof Door still prevented passage of fire, smoke, heat, gases and remained cool to the touch on the unexposed side.

Announcing

THE NEW WELDWOOD FIREPROOF DOOR

Weldwood Fireproof Doors bear the official label of the Underwriters' Laboratories (official testing agency for fire insurance Underwriters).

They attained the one-hour fire rating by withstanding a free-burning fire for one hour, the ultimate temperature being 1700°. And after that, the impact of a 30-pound pressure hose stream, applied 20 feet from the fire side, for one minute.

Weldwood Fireproof Doors are a *must* for hotels, hospitals, schools, institutions, offices, and apartment buildings.

And these amazing doors are as *beautiful* as they are *safe!* They're dimensionally stable . . . stay straighter and are lighter in weight than other fireproof doors. The original cost is moderate, maintenance cost is practically non-existent, and Weldwood Fireproof Doors last for the life of the building.

For additional information write to: United States Plywood Corporation, New York 18, N.Y.

A Wood-Faced Fireproof Door which offers all these advantages

1. *Increased Safety*

The *only* wood-faced fireproof door which bears the Underwriters' label. All Weldwood Fireproof Doors are approved for class B openings.

2. *Beauty*

Because of their beautiful wood faces Weldwood Fireproof Doors harmonize perfectly with any decorative scheme.

3. *Durability*

The Underwriters' Laboratories tested a Weldwood Fireproof Door for durability by mechanically opening and closing it 200,000 times. At the end of the test, the door was unaffected and still opened and closed perfectly.

4. *Dimensional Stability*

Weldwood Fireproof Doors are so dimensionally stable that we guarantee them against sticking in summer or rattling in winter due to any dimensional changes in the door.

5. *Light Weight*

At last . . . a really fireproof door that is *not* heavy or unwieldy. A standard 3 x 7 door weighs approximately 80 lbs.

6. *Vermin and Decay Proof*

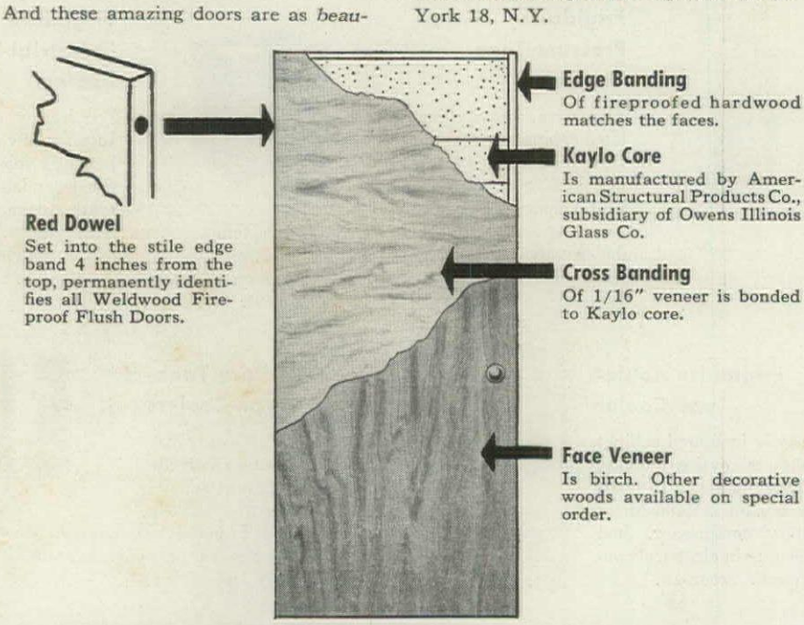
The mineral composition Kaylo core used in Weldwood Fireproof Doors is permanently resistant to fungus, decay, and termites.

7. *High Insulating Qualities*

Another noteworthy characteristic of Kaylo insulation is its high insulating value over a wide range of temperatures. It is efficient against temperatures from freezing up to that of superheated steam.

8. *Moderate Cost*

Investigate these doors for use on your next job. You will be pleasantly surprised at the low initial cost, and the minimum of maintenance required.



Red Dowel
Set into the stile edge band 4 inches from the top, permanently identifies all Weldwood Fireproof Flush Doors.

Edge Banding
Of fireproofed hardwood matches the faces.

Kaylo Core
Is manufactured by American Structural Products Co., subsidiary of Owens Illinois Glass Co.

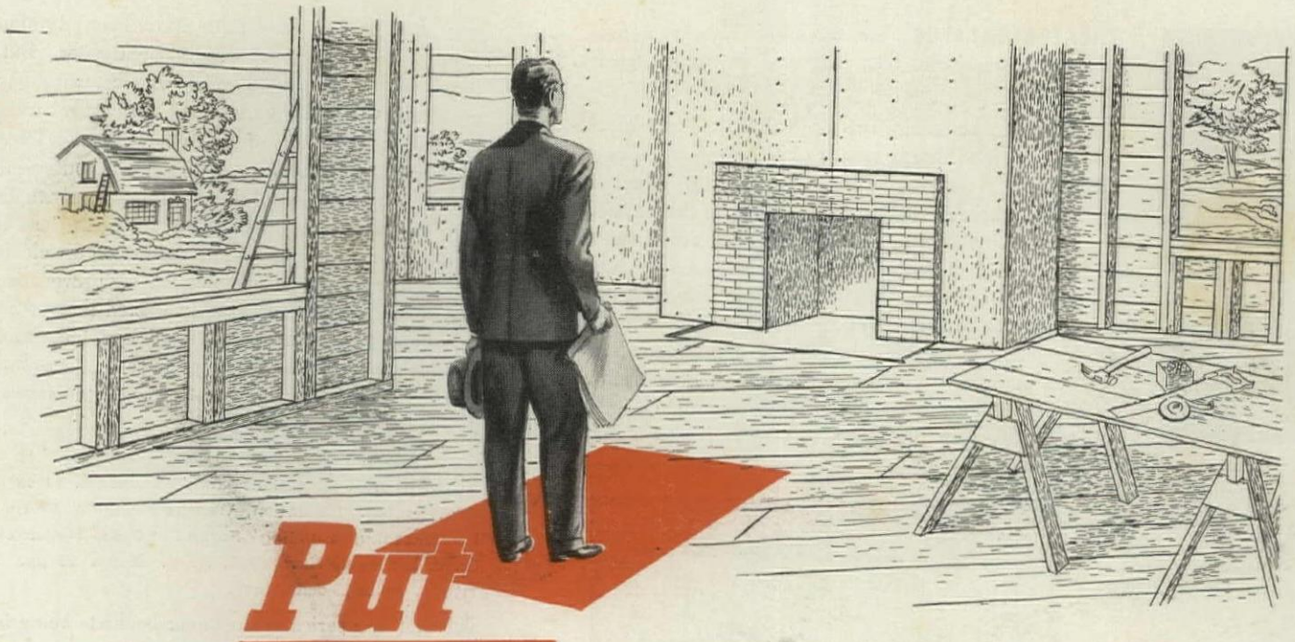
Cross Banding
Of 1/16" veneer is bonded to Kaylo core.

Face Veneer
Is birch. Other decorative woods available on special order.

UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N. Y.

Distributing units in Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, Fresno, High Point, Los Angeles, Milwaukee, Newark, New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore.; Rochester, San Francisco, Seattle. Also U. S.-Mengel Plywoods, Inc. distributing units in Atlanta, Dallas, Houston, Jacksonville, Louisville, New Orleans, St. Louis, Tampa. *In Canada:* United States Plywood of Canada, Limited, Toronto.



Put Yourself in His Place

HOW WELL DO YOU INFORM HIM ABOUT YOUR NEW HOMES?

MR. SMITH, your prospect, looks at one of your new homes. He's considering probably the biggest single purchase of his life. He's worried about prices, anxious to get full value for every dollar. How well do you inform him about your homes—and *convince* him?

We have a new way to help you sell—to keep your name and all the facts before your prospect while he's making the decision.

Our plan is the "Home Buyer's Guide"—a beautiful full color portfolio, in large size, with your name and address imprinted on the back cover.

The inside pages are divided into pockets. We insert Rheem literature to describe in detail the Rheem Appliances you have installed. You can get similar literature from your other suppliers, to cover all the products and equipment in the house.

You simply put a supply of the "Home Buyer's Guide" in your model homes and sales office, and invite prospects to take one free! It answers hundreds of questions, saves you hours of time.

This new service is presented to you by Rheem—the world's largest maker of automatic water heaters and the foremost manufacturer of other Home Comfort Appliances. Fill in and mail the coupon . . . our representative will call promptly to show you the "Home Buyer's Guide" and take your order. Do it now!

THE "HOME BUYER'S GUIDE"

A beautifully illustrated portfolio with your name imprinted.

All the facts about your homes in a single package.

Stays with your prospect while he's deciding.



RHEEM MANUFACTURING COMPANY
Dept. AF-7
570 Lexington Ave., New York 22, N. Y.

Please show me a sample of your "Home Buyer's Guide."

Name_____

Address_____

City_____ State_____

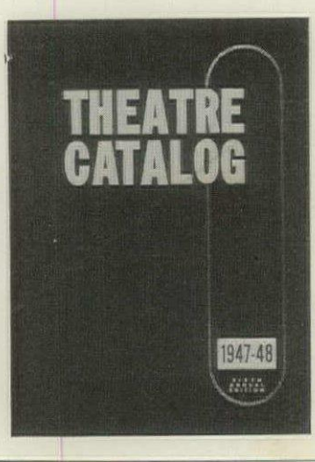
Rheem

HOME COMFORT APPLIANCES

9 Plants in U.S.A.— affiliated companies in Brisbane, Melbourne, Sydney, Rio de Janeiro, Singapore, and Hamilton, Canada.

Automatic Water Heaters
Soft Water Appliances
Heating Appliances
Cooling Appliances

TECHNICAL LITERATURE



THEATER CATALOG 1947-48 Sixth Annual Edition. Jay Emanuel Publications, Inc., 1225 Vine St., Philadelphia 7, Pa., 591 pp., 9 x 11 in. Price $3 in U.S.A., $5 elsewhere.

This big yearbook has two objectives, "to record the new construction and design trends of all types and sizes of theaters in each given year" and "to forecast the future developments that through the year are making of the physical theater the most modern of all buildings." In achieving the first objective, that of recording current design in theaters, the book does much to destroy its second announced aim, that of demonstrating that theaters are modern, at least in the sense of design. The theaters shown may register some progress in such matters as environment control and in such devices as improved popcorn machines. They are "20° cooler inside," and new floors in the lobby will be easier to maintain. A very few design techniques have been developed further notably that of the drive-in movie theater. But in general these are the same old movie houses, with better air and equipment—just as garish and miserably designed as the moorish monstrosities of the Nineteens' and Twenties.

Although all too many of the movie houses—the principal preoccupation of the volume—will serve only to depress architects and designers, there is something in the book for them in the technical articles. The discussion of television in theaters—large screen video projection—is provocative. Such suggestions as making the usually wasted theater basement into a billiard parlor do have value. Equipment and furnishing articles are well done. Surely, however, there must be better theaters being built than most of those put forward as examples in this yearbook.



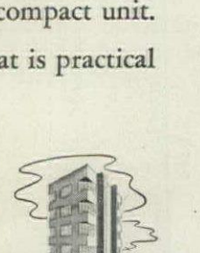
MURPHY-CABRANETTE KITCHENS

PORCELAIN ON STEEL

You'll recognize tenant-appeal in the front of gleaming white porcelain . . . in the convenience of modern refrigeration with push-button door and stainless steel frozen food compartment, with modern gas or electric range, with roomy upper storage cabinets and with the large deep bowl sink in the one-piece top of porcelain . . . all skillfully streamlined into one compact unit.

You'll value the saving in valuable floor space that is practical with any Murphy-Cabranette Kitchen.

You'll be long satisfied with the trouble-free operation and almost negligible maintenance costs.



DWYER PRODUCTS CORPORATION
Dept. F7 — MICHIGAN CITY, INDIANA

BUILDING. Foundations and Basements. Heating and Air Conditioning. Insulation, Weatherstripping, Storm Sash. Good Housekeeping Building Forum, "Good Housekeeping," 57th St. & 8th Ave., New York, N. Y. 26 pp. 28 pp. 18 pp. 8½ x 11¼ in. Price 25 cents each.

The first in a series of consumer booklets being issued by the *Good Housekeeping* Building Forum, these publications answer numerous questions about house construction. Booklet No. 1, *Foundations and Basements*, gives information on how to assure a dry, crackproof foundation and basement in new construction and advises on repairing unsatisfactory existing basements. *Heating and Air Conditioning*, booklet No. 2, describes basic heating systems and their equipment while booklet No. 3, *Insulation, Weatherstripping, Storm Sash* discusses the various weather protections, their advantages and installation. A wealth of information presented in simple language plus good illustrations make these booklets of special interest to the layman.

LIGHTWEIGHT AGGREGATE. Waylite Aggregate For Lightweight Concrete. The Waylite Co., 105 West Madison St., Chicago, Ill. 12 pp. 8⅜ x 11 in.

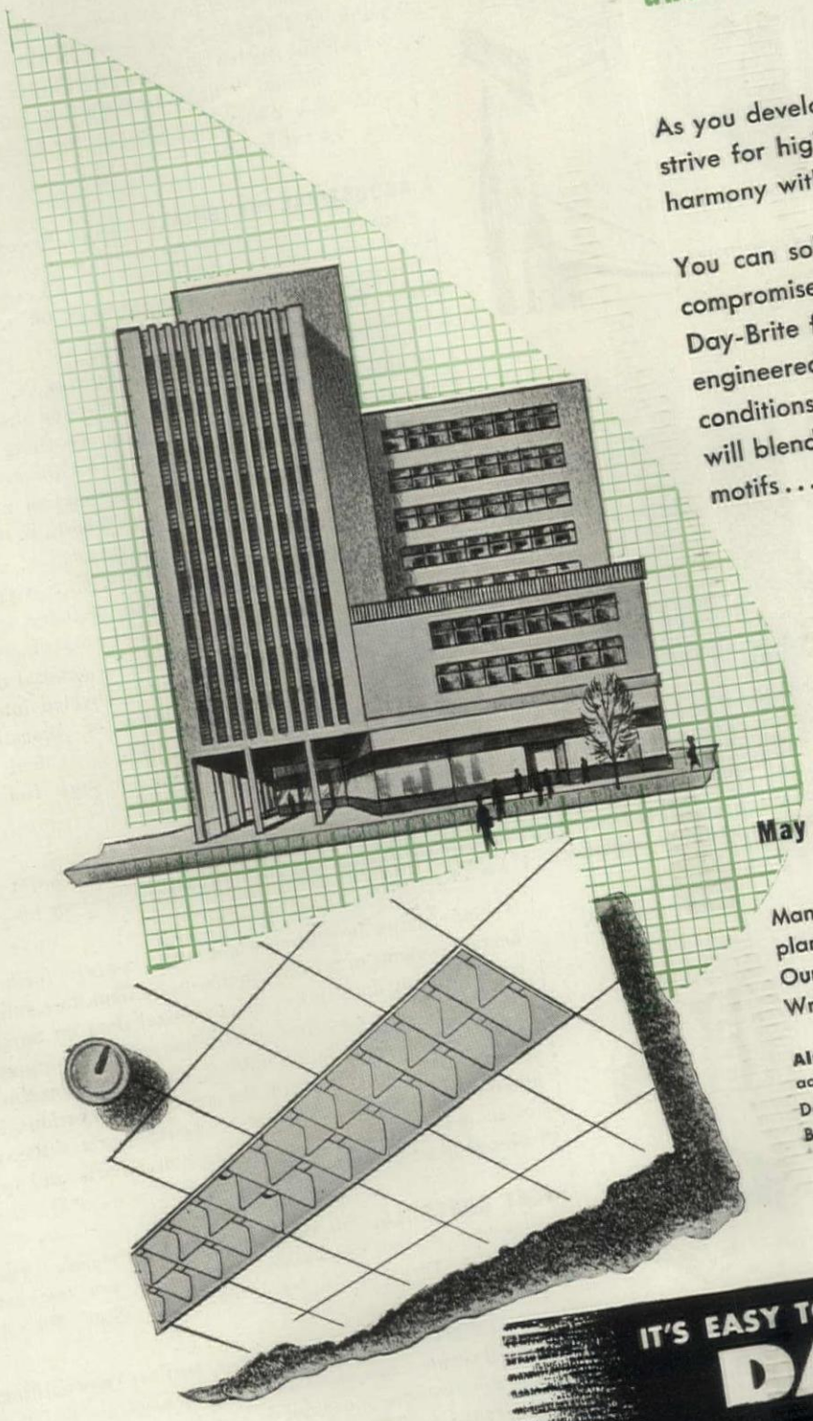
Waylite, a light-weight, cellular aggregate for use in concrete construction is the subject of this booklet. Opening sections deal with the product's advantages, physical properties and uses. Following pages give design data, construction features and properties of Waylite masonry walls. Details and tables illustrate the various Waylite concrete units and their applications give design factors and mix data and physical properties of units and walls built with standard types of Waylite units. Concluding pages are devoted to Waylite concrete floor and roof fill mixes and precast Soffitile acoustical ceiling units.

GLASS BLOCKS. Daylight In Industrial Buildings. American Structural Products Co., Toledo, Ohio. 36 pp. 8½ x 11 in.

Daylight In Industrial Buildings outlines the advantages which Insulux offers to owners and operators of industrial buildings. A condensed yet comprehensive treatise on the characteristics of Insulux glass block, its advantages from a cost standpoint and its methods of installation, the booklet is well illustrated with photographs of actual installations in a variety of industrial plants, mills, dairies, offices, etc., and with simplified charts and drawings. The work is arranged in ten sections which embrace such topics as the daylight transmitting qualities of Insulux, its insulation value, low maintenance, heat gain, sanitation and sound reduction. Closing sections are devoted to available sizes and patterns, architectural details and specifications. *(Continued on page 150)*

OPTICALLY ENGINEERED

for architectural harmony and efficient planned lighting



As you develop your building designs, you strive for highest lighting efficiency in harmony with architectural beauty.

You can solve this problem without compromise by planning the lighting around Day-Brite fluorescent fixtures. They are engineered to provide optimum visual conditions and their functional simplicity will blend beautifully with your architectural motifs . . . modern or traditional.

May our lighting engineers assist you?

Many leading architects find our service helpful in planning complex layouts or special lighting effects. Our wealth of experience is yours for the asking. Write us any time.

Aluminum Recessed Troffers. Snap-in and Flange Type for accoustical or plaster ceilings . . . unit or continuous installations. Designed for two 40-watt fluorescent lamps. May we send you Bulletin 20-B with more detailed information?

013

IT'S EASY TO SEE WHEN IT'S

DAY-BRITE *Lighting*

Day-Brite Lighting, Inc., 5471 Bulwer Avenue, St. Louis 7, Mo.
Nationally distributed through leading electrical supply houses.

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Architects
Builders
Contractors
(Heating)



CO 150
COAL FIRED WINTER AIR CONDITIONER

PoweRated*...heating giant of the J&C COMPLETE LINE has become an engineering household word... wherever greater warm air heating requirements are considered.



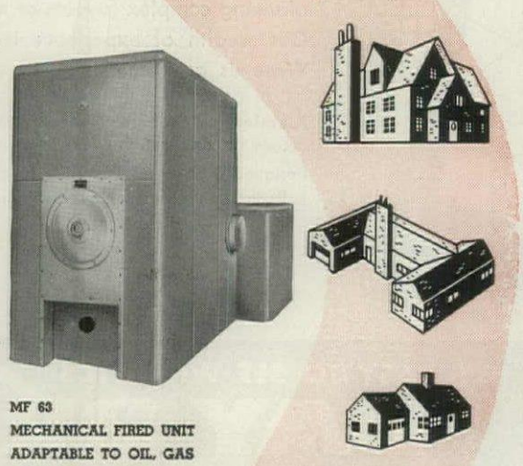
OL 1925
OIL FIRED WINTER AIR CONDITIONER

A plus B plus C ... have placed J & C ahead of the field by choosing PoweRated* for hard-to-heat factories, stores, airport hangars, schools and churches. They, (A, B and C) have also recognized J & C's leadership in industrial applications for drying and processing.

Because of the proven superiority of the PoweRated* design ... Jackson & Church has faithfully reproduced PoweRated* features in the Poweraire and smaller units. J & C now offers A-B and C complete heating coverage in the warm air field from factory to cottage.

J & C'S COMPLETE LINE includes: over 100 models for coal, oil or gas ... gravity or forced air ... with outputs from 3,800,000 down to 50,000 Btu's per hour. Today ... the answer to the heating question is as simple as abc ... for factory, store or home . of course it's—J & C.

*Designed to Fit-the-Job ... Provide specified Btu output to meet big requirements.



MF 63
MECHANICAL FIRED UNIT
ADAPTABLE TO OIL, GAS
OR STOKER FIRING

A PRODUCT OF
JACKSON & CHURCH COMPANY, SAGINAW, MICHIGAN
WORK WELL DONE SINCE '81

GLASS. Patterned Glass for Office, Store, Showroom, Restaurant and Shop Modernization. Blue Ridge Glass Corp., Kingsport, Tenn. 20 pp. 8⅝ x 11 in.

The utility and decorative aspects of patterned glass for solving modernization problems in stores, shops, offices and public buildings are presented in this brochure. Numerous actual installation photographs illustrate the two main features, maximum light transmission and complete privacy, while other illustrations indicate the many design possibilities with decorative glass.

ACOUSTICAL MATERIALS. Sound Absorbing Coefficients of Architectural Acoustical Materials, Bulletin X. Theory and Use of Architectural Acoustical Materials. Acoustical Materials Association, 205 West Monroe St., Chicago, Ill. 12 pp. 20 pp. 8½ x 11 in. Price 25 cents.

Superseding previous issues, Bulletin X, 1948, furnishes reliable up-to-date technical data on sound absorbing materials and their uses. Tables show sound absorbing coefficients and other physical characteristics of approximately 20 materials manufactured by the following association members: Armstrong Cork Co., The Celotex Corp., The E. F. Hauserman Co., Johns-Manville Corp., National Gypsum Co., Owens-Corning Fiberglas Corp., Simpson Industries, U. S. Gypsum Co. An alphabetical list of trade names is included for convenient reference together with the name of the manufacturer. *Theory and Use* gives, as its title indicates, a general discussion of the subject, architectural acoustics. Divided into five parts, contents include: Meaning and Use of Acoustical Terms, Reflection and Absorption of Sound, Acoustical Deflects in Auditoriums, Sound Conditioning in Work Rooms, Sound Insulation.

HEAT CONTROLS. Sarcotherm Weather Control For Hot Water and Radiant Heating. Sarcotherm Controls Inc., 350 Fifth Ave., New York, N. Y. 20 pp. 8½ x 11 in.

An informative brochure on automatic controls for hot water heating systems of all sorts including radiant, this publication provides both descriptive and technical data on Sarcotherm controls and their applications to hot water heating systems. Operation and installation data on the Sarcotherm three-way mixing valve—the heart of the system—the various indoor and outdoor controls and other component parts of the system are included. Clear cut-away diagrams, charts and typical hook-ups illustrate the work.

HEAT CONTROLS. In the Nation's Finest Homes. Thrush Hot Water Forced Circulation, Engineering and Installation Data. H. A. Thrush & Co., Peru, Ind. 16 pp. 20 pp. 8½ x 10⅞ in. 8⅜ x 11 in.

Prepared especially for the consumer, *In The Nation's Finest Homes* illustrates and describes Thrush Controls and their various applications for achieving a completely automatic forced circulating Thrush Flow Control system of hot water heat. The text, amplified by diagrams and photographs, discusses the component parts of the system, the system's advantages, methods of heat delivery, a two-pipe system, a balanced single main system and zone control. The second booklet contains engineering information on the Forced Circulating Thrush Flow Control System. Engineering and installation data, wiring diagrams and typical details on radiant heating as well as conventional type hot water heating systems are well presented.

(Continued on page 152)

KOPPERS COAL TAR PITCH ROOFING ON THESE BUILDINGS SERVED 27 YEARS WITHOUT REPAIRS

... so they bought another Koppers Roof!

CONTINENTAL GIN COMPANY
MANUFACTURERS OF
COTTON GINNING MACHINERY
CONVEYING, ELEVATING, POWER
TRANSMISSION EQUIPMENT

ATLANTA 1, GA.

Mr. Charles N. Walker
President
Charles N. Walker Roofing Company
Atlanta, Georgia

Dear Sir:

On October 7, 1919, you reroofed several buildings for us here in Atlanta, and signs were placed in each of them, stating that these buildings were done by Walker Roofing Company and were guaranteed for 10 years from above date.

This work was done some 27 years ago, and there has been no repair work on any of these roofs to this date.

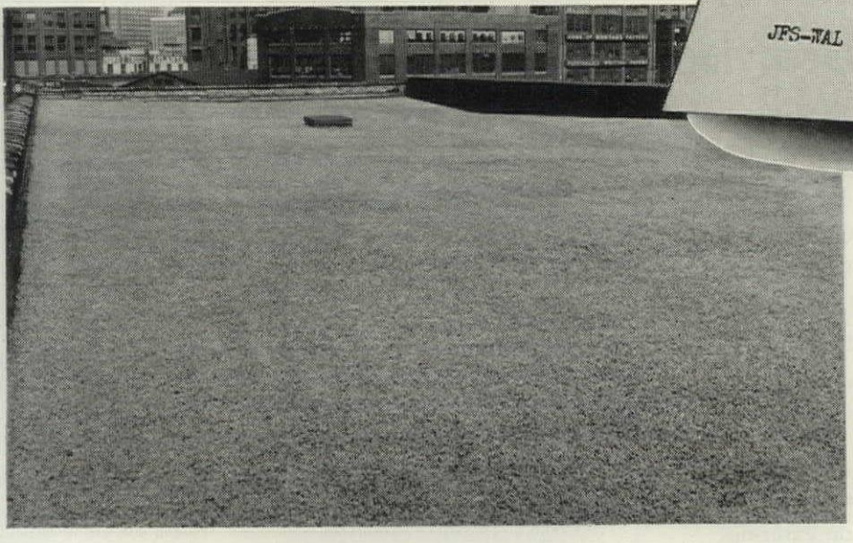
On February 25, 1946, we had the misfortune of losing some of these buildings by fire, but building #32 was saved, and this was one of the roofs which you did in 1919; however, on account of the fireman climbing over this roof and dragging hose over same for about 24 hours it is necessary to have this roof replaced.

And because of your work being so highly satisfactory, we are asking that you reroof this building again.

Yours very truly,
J. F. Smith

JFS-WAL

Superintendent
Continental Gin Company



Mr. Walker is a Koppers Approved Roofer. The roofing he applied on these roofs 27 years ago was manufactured by the American Tar Products Company, which is now the Tar Products Division of Koppers Company. The new roof is a Koppers roof, too.

This year marks the twentieth anniversary of the date when Koppers first issued 20-year bonds on its roofs. However, many fine old coal tar pitch roofs... like these... go back far beyond that time.

On your next job, specify a Koppers roof.

KOPPERS

KOPPERS COMPANY, INC.
PITTSBURGH 19, PA.

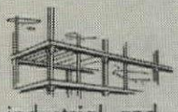
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TECHNICAL LITERATURE

LAMPS. GE Large Lamp Catalogue. Lamp Dept., General Electric Co., Nela Park, Cleveland, Ohio. 70 pp. 8½ x 11 in.

GE's comprehensivve 1948 catalogue gives complete listings on numerous types and sizes of filament, fluorescent, mercury, infrared, sun and germicidal lamps. Opening pages discuss the 10,000 different types and sizes of GE lamps available along with the aim of GE research. They also include a spectrum chart which illustrates the range of wave lengths of radiant energy covered by ultra violet, infrared and visible light sources. Following sections illustrate and describe the parts and operation of the various types of lamps; the types, sizes, colors and bulb finishes available, etc. Tables give technical data and prices. Among the numerous lamps presented in the catalogue are: general lighting lamps, fluorescent, mercury, heat and industrial infrared, blacklight and sun lamps, germicidal, three-lite, reflector and projector lamps, flood, spot, high voltage and show case lamps, Lumiline lamps, sign and decorative, neon glow, 6 and 12 v. lamps, etc. Complete indexes and ordering instructions are included.

REVOLVING DOORS. 1948 Catalog. Revolving Door Div., International Steel Co., Evansville, Ind. 24 pp. 8⅜ x 11 in.

International's various revolving door models—all glass, crystal, conventional custom built hollow metal, metal on wood, Formica on wood, wood veneer and two low cost stock doors—are featured in this catalogue. The opening sections explain the five basic advantages of revolving doors and give such technical data as infiltration losses, traffic capacities, means of estimating door requirements and miscellaneous planning data. Following sections are devoted to the various models, their specifications and details, while concluding sections cover swing doors and auxiliary entrance work; mechanical features and controls; and architectural details.

REQUESTS FOR LITERATURE.

HARRY SIMS BENT, architect, 1240 South Marengo St., Pasadena 5, Calif.

KARL E. BLOMBERG, architect, 16 Court St., Brooklyn 2, N. Y.

WILLIAM COOLEY, architect, 1241 Granville Ave., Chicago 40, Ill.

HERBERT P. FIFIELD, architect, 350 Spreckels Bldg., San Diego 1, Calif.

FRANK H. FORD, architectural student, 34 Watson Ave., East Ham, London E 6, England.

BERNARD J. FRIEDMAN, architect, 1506 East Seneca, Tucson, Ariz.

JOSEPH T. GEMMI, architect, 205 Speednell Ave., Morristown, N. J.

SALVADOR A. GODOY, architect, San Martin 338, Cordoba, Argentina.

STANLEY GOLDIN, 2517 Durant Ave., Berkeley 4, Calif.

RALPH A. GOODHILL, designer, Birchwood Road, No. Caldwell, N. J.

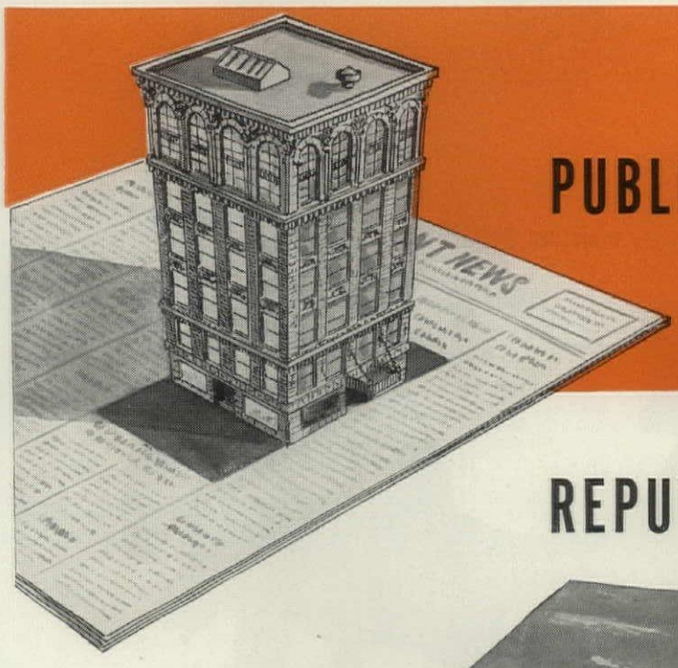
F. W. JACOBS and G. D. LODVICK, civil and industrial engineers, 111 New Montgomery St., San Francisco 5, Calif.

IRVING JARKOVSKY, architectural student, 756 Flood Bldg. San Francisco, Calif.

R. A. JONES, 7 Neville St., Cardiff, England.

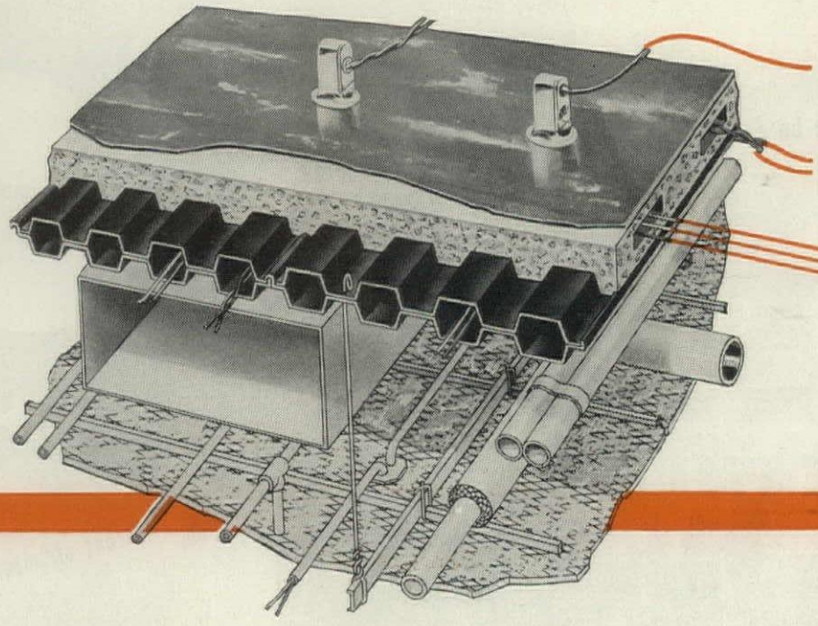
R. W. JOWETT, architectural student, 354 Broxtowe Lane, Aspley, Nottingham, England.

CHRISTOPHER P. KANTIANIS, architect, Springfield National Bank Bldg., Springfield, Mass. *(Continued on page 156)*



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Steel Q-Floor is shown with suspended ceiling and condensed visualization of mechanical equipment (no preset inserts) needed in a modern building.

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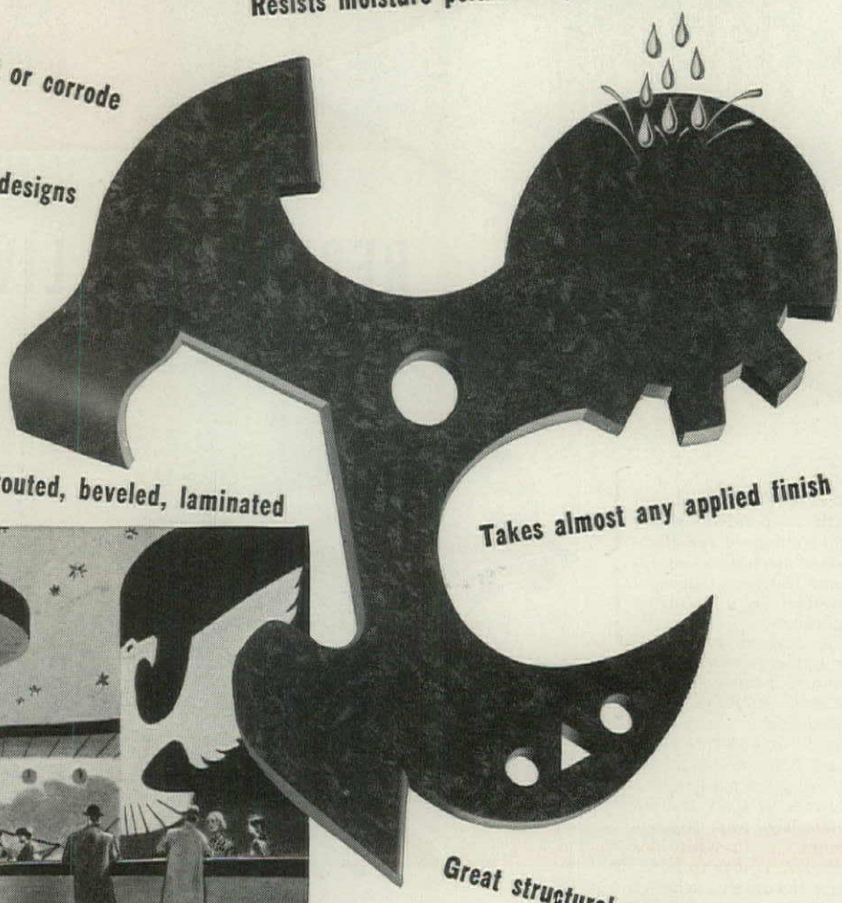
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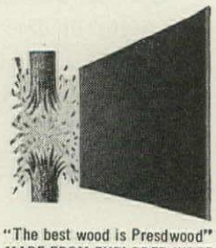
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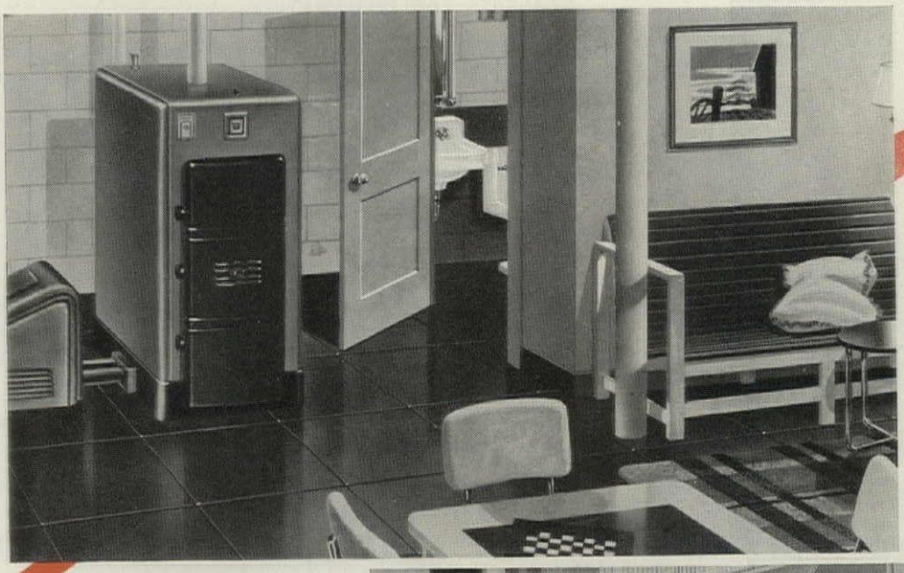
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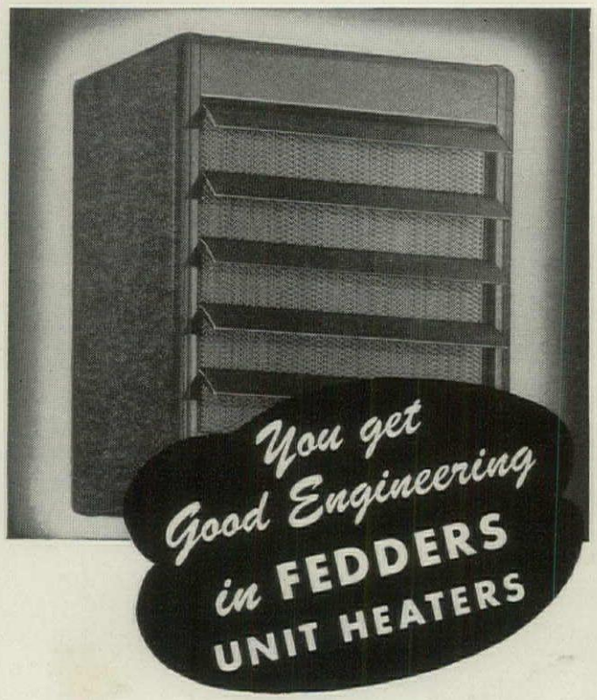
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Jean C. Grimaldi, architect, 64 Rue Belliard, Brussel, Belgium, desires information on interior equipment and decoration.

R. G. R. Haggard, civil engineer and planning consultant, "Olega," Church Road, Purley, Surrey, England, requests literature concerning residential construction and equipment.

Karl Heinz Petersson, architect, Osnabruck, Laischaftstrasse 61, Germany, desires correspondence with American architects to discuss architecture in the U. S. and Germany and to exchange American and German architectural periodicals and books.

Seymour Motor Co. Ltd., Bury Old Road, Manchester 8, England, desires information on American heating methods.

Architecten-En Ingenieursbureau Voor Den Handel En De Industrie "Stam", Spoorsingel 33, Rotterdam, Holland, desires literature on modern industrial and administration buildings, their construction, equipment and decoration.

Temple University Technical Institute, Att: James J. Crawford, 720 N. Broad St., Philadelphia, Pa. requests samples of building materials and units for constructional purposes in contracting and estimating courses.

Wilson, Morris & Crain, architects, 3330 Graustark, Houston 6, Tex., would like to receive information on modern club interiors including kitchen equipment.

A. P. S. Voutsas, 144 Bloed St., Pretoria, South Africa, requests information on shopping centers, underground parking garages, office buildings and traffic circulation.

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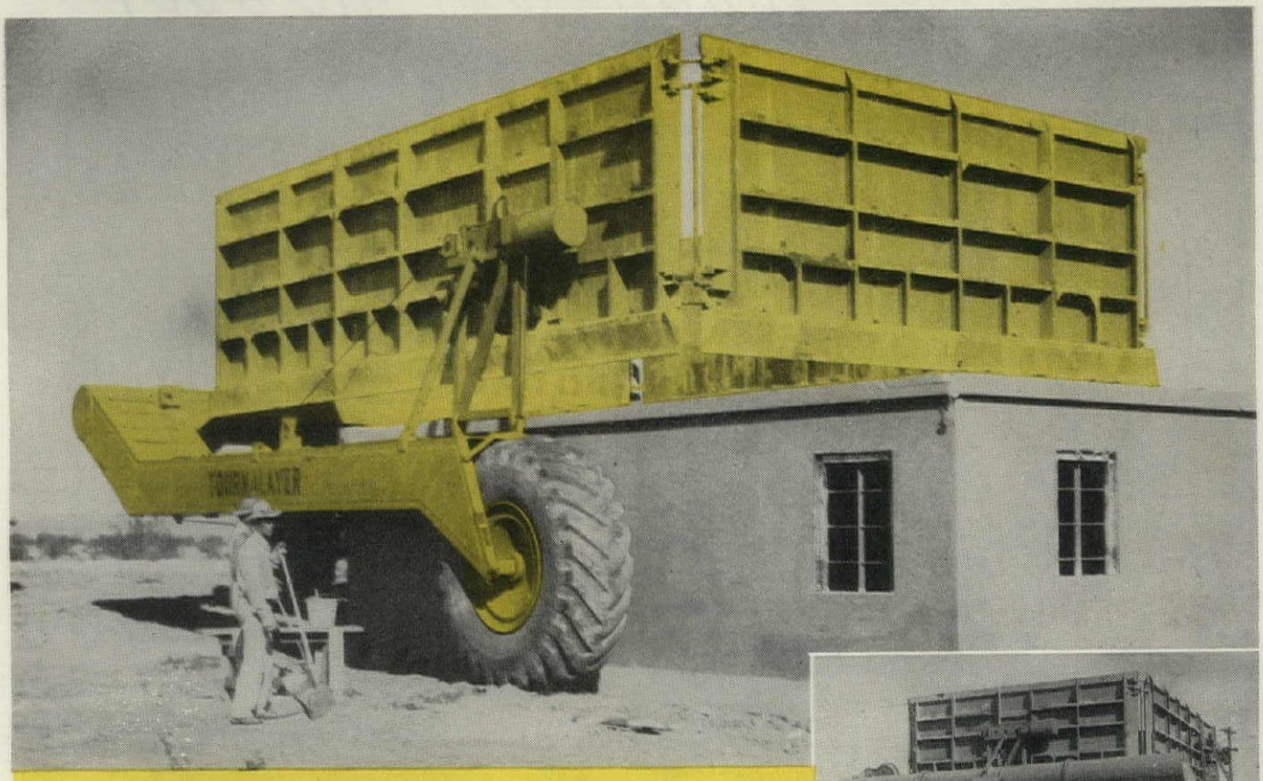
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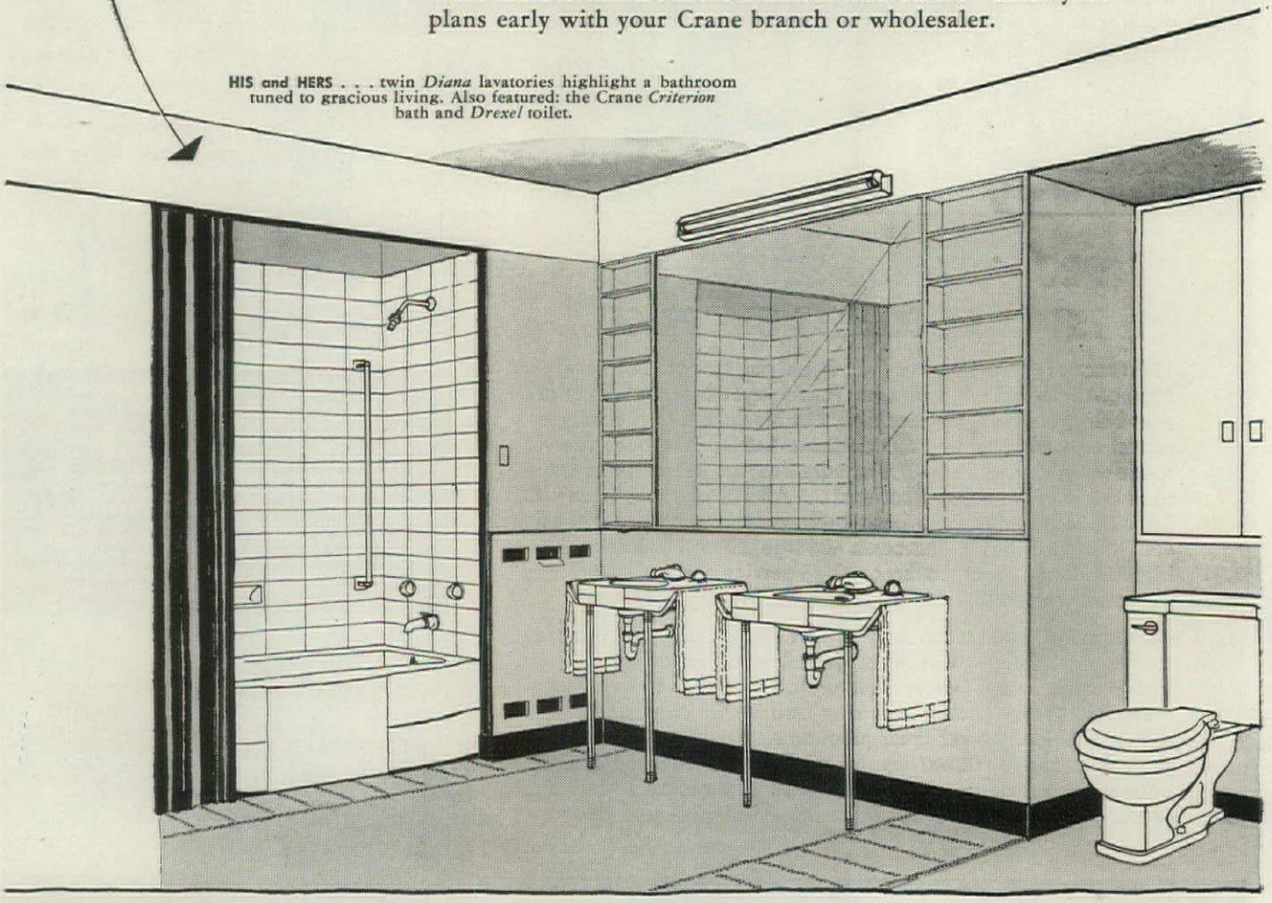
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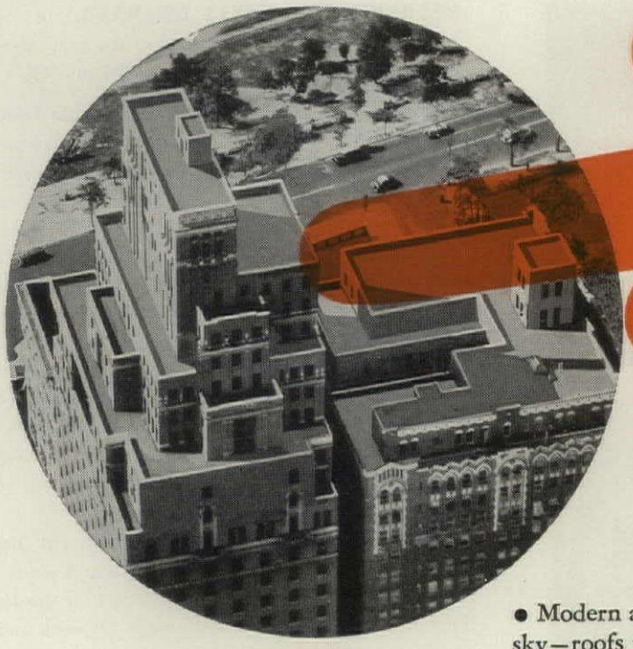
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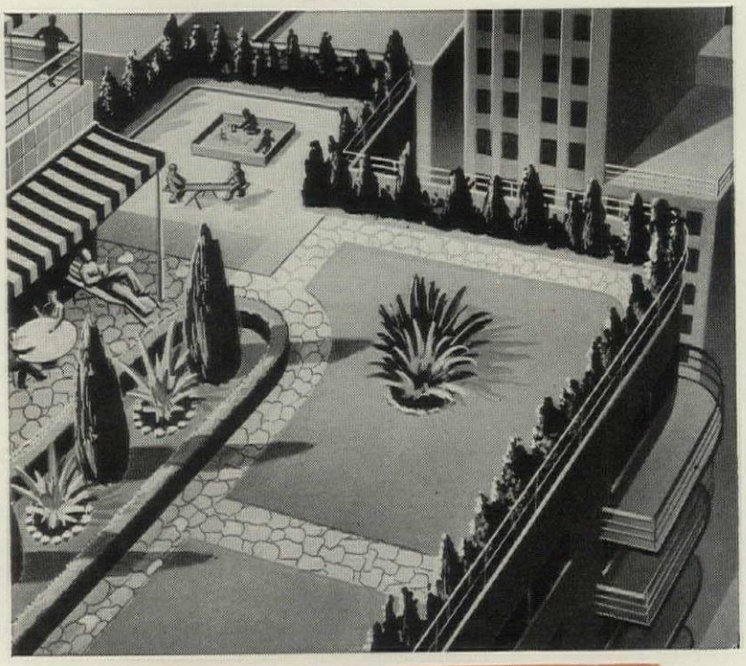
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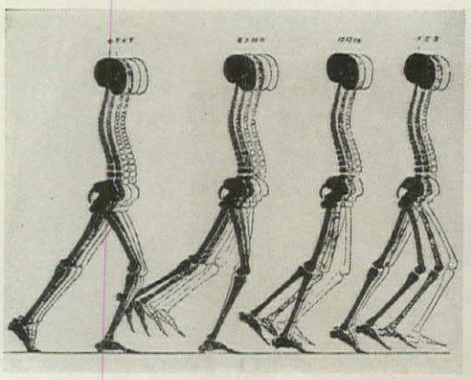
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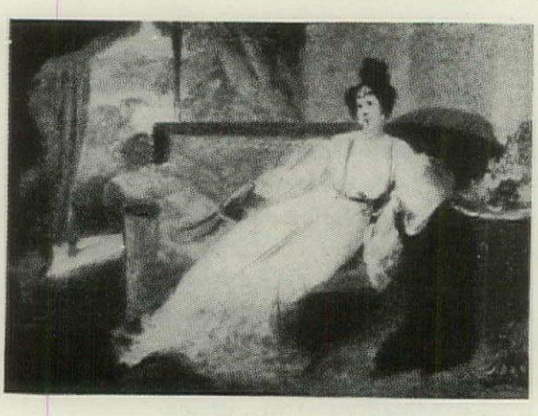
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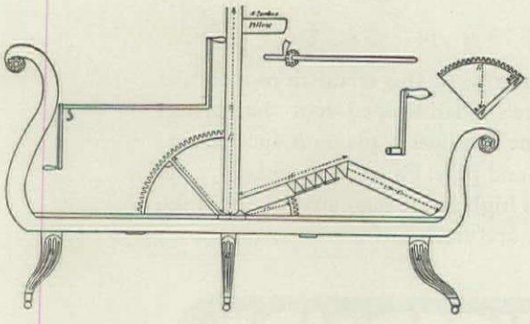


German anatomists of the 1830's previewed Marcel Duchamps' 1912 "Nude Descending the Staircase."

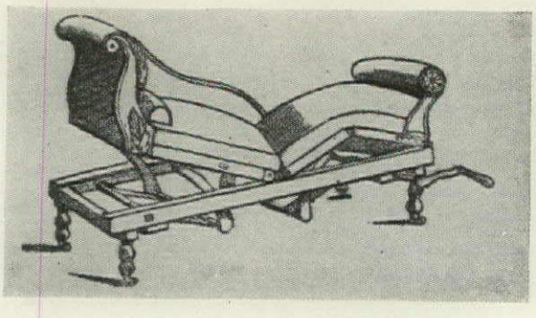




1810 water color of Empress Josephine by Bonington shows discrepancy between posture and rigid Empire sofa.



1813 sofa designed as a "machine for the care of invalids" makes a relaxed posture more comfortable.



1840 invalid couch goes a step further in the process of adapting a mechanical object to man.

MECHANIZATION TAKES COMMAND. A Contribution to Anonymous History. By Siegfried Giedion. Oxford University Press. New York. 1948. 501 illus. 743 pp. 6¾ x 9¾ in. $12.50.

With the appearance of this book, what Giedion calls the "anonymous history" of our times advances to the forefront of importance. Indeed, in the light of his explorations, the standard histories seem suddenly pallid and paper-thin accounts of what really happened. The well-known places, the famous men and the echoing events appear as but the surface expressions of much deeper currents. Currents which the writers of history books seem not merely to have ignored but of which they actually appear ignorant. When one follows Giedion's account of the mechanization of wheat-growing and bread-making, or the creation of the meat-packing industry, one suddenly realizes that a lot of anonymous inventors and mechanics were more important in such national issues as the tariff than the frock-coated congressmen who ultimately gave the bills their name.

This is probably the most significant contribution of *Mechanization Takes Command*—that it adds a whole new dimension to historiography. It strips off the familiar skin of history and shows the actual process at work underneath. The productive capacity of mankind was enormously increased by mechanization—and this had seismic effects on human history. Historians commonly refer to this event as the Industrial Revolution and generally admit its great importance. But who, exactly, were the revolutionists? What did they do, and why and how? What did their designs look like and how did they work? It is Giedion, rummaging through old catalogues and advertisements, unearthing dusty models of forgotten patents, who gives us a detailed and coherent picture of the technological substructure of this Industrial Revolution.

A history of mechanization is, of necessity, largely devoted to the Nineteenth Century (since that was the period in which it flowered) and to America (since this was where it saw its fullest development). But, as Giedion points out, the sources are neither modern nor American. Many developments spring from the Gothic period (the lock, the chair, the bath) and an astonishing number of so-called American developments had their origins abroad—especially in France. Nevertheless, it was Victorian America which not only put mechanization to work most widely but also had the most implicit faith in the "goodness" of the machine. The fecundity and optimism of this period, as seen through the illustrations in Giedion's book, now appear almost incredible. There was, apparently, no process which could not be mechanized (though artificial insemination was not perfected until the present century) and no process which the machine would not *per se* improve.

The book opens with a description of the rise of mechanization generally, including a fascinating review of such pioneers in motion studies as Marey and Muybridge and their successors, the time-and-motion experts Taylor, Gilbreth and Bedaux. But the main body of the book deals with the impact of mechanization upon four specific fields of activity: the production of wheat, meat and bread; the design of household furniture and furnishings; the design of labor-saving devices for household tasks—cooking, cleaning, laundry and waste disposal; and the design of the bath. Any one of these sections (with its illustration and documentation) would make a respectable book in itself. Together, they present an almost overpowering mass of information, little of which has been gathered together before. In this sense, the book is unique. (Where else could one find a single chronological account of the development of the harvester combine? Of Nineteenth

(Continued on page 162)

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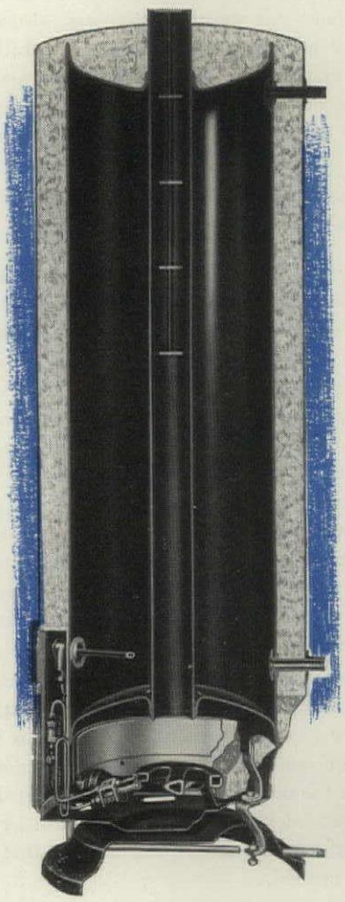
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Century upholstery and curtains? Of the cooking stove?) Giedion's coverage here is encyclopedic.

In some ways, however, *Mechanization Takes Command* is not a satisfactory book. Giedion's style is not felicitous and, conceptually, the work is rather formless. This is partly due, no doubt, to the immensity of his subject matter but partly also to his incomplete grasp of it. His ability at research is not always matched by his powers of analysis and integration. But his research is inspired: an intuitive knowledge of where to look for facts, an infallible instinct for the really important facts, and real genius at juxtaposing them for maximum illumination.

Thus his account of how Victorians on both sides of the Atlantic, obsessed with their new-found knowledge of gases, sought eagerly to put them to work at inflating balloons, at making bread rise quicker than yeast or at making carbonated drinks, is a penetrating yet hilarious comment on the Nineteenth Century mind. Similarly enlightening is Giedion's use of art works to demonstrate the fashion in which artists reflected (sometimes even anticipated) developments in technology. Some of these co-relations seem farfetched (and, in at least one instance, absurd—as when he attributes to Paul Klee, the German abstract artist, the invention of the arrow as a directional symbol in signs) but all of them serve to show the internal consistency of a given epoch.

If there is a moral to be drawn from his new book, Giedion —despite the reviewers—does not do it. He confines himself to a cool, tenacious investigation of the mechanization of certain definite areas of human activity. He refrains from those ponderous moral judgments and windy speculations which have trapped a whole succession of critics from Ruskin to Aldous Huxley. He thereby successfully avoids the cloudy animism which made it impossible for them to distinguish between the machines and the industrialized society which was using them. In a short concluding chapter, Giedion indicates that he is well aware of the problems with which mechanization confronts us. But he insists that "mechanization is an agent, like water, fire, light. It is blind and without direction of its own." If today the machine is eyed suspiciously by many people who depend upon it for their very existence, it is a case of mistaken identity: they confuse cause and effect. "Without a doubt . . . mechanization was misused to exploit both earth and man with complete irresponsibility." But for this, blame man, not machine. The effective control of mechanization, he says, "demands . . . that everything be subordinated to human needs." J.M.F.

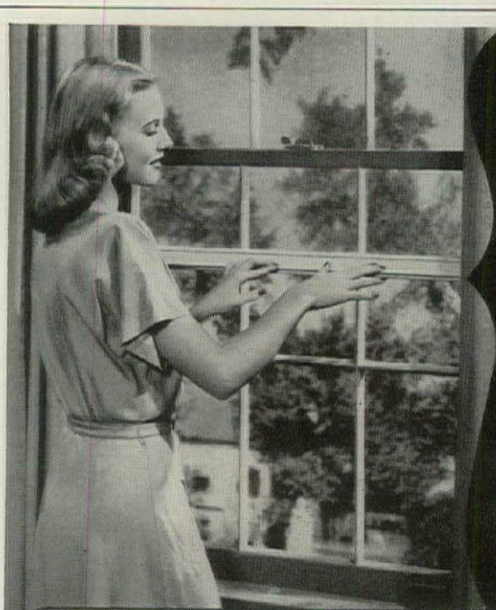
TASK ⅞. Post Office Box 117, Cambridge, Mass. 96 pp. Illus. 9¾ x 7¾. $1.00.

For some time now hope has been dwindling for the revival of *Task* magazine, the pioneer planning quarterly which bloomed briefly in the early Forties. Therefore, it is a pleasure and a definite relief to announce that the first postwar issue is presently available. It is a handsome, double copy which reports primarily on reconstruction abroad. The first section is comprised of sixteen individual articles from and about foreign countries including Canada and Latin America. The authors are all outstanding in their fields, many of them directly connected with the work going on. For instance, Adolphe Puissant writes on Belgium, Walter Gropius on Germany, E. G. Faludi on Italy, P. A. Emery on Bizerte. It goes without saying that this fund of information will prove invaluable to planners and architects.

The second section of the issue contains some excellent articles which, though heterogenous in content, lean more toward abstract theory. Of particular interest is Joseph Hudnut's essay *On Genuine Education* and Christopher Tunnard's contentions on the need for esthetics in present day architecture. Also included is *The Housing Impasse* by Richard F. Watt, a splendid outline in spite of the fact that it recrosses much traveled ground.

Task, with this issue, makes a special appeal to its friends and readers for suggestions and active support. The editors seem undecided as to the direction it is to take, and are sincere in their request. At stake are such decisions as whether it shall appear annually, semi-annually or quarterly and whether it shall concentrate on single purpose issues like the

(*Continued on page 164*)



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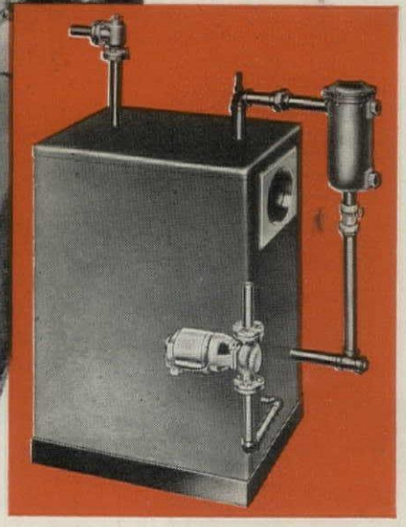
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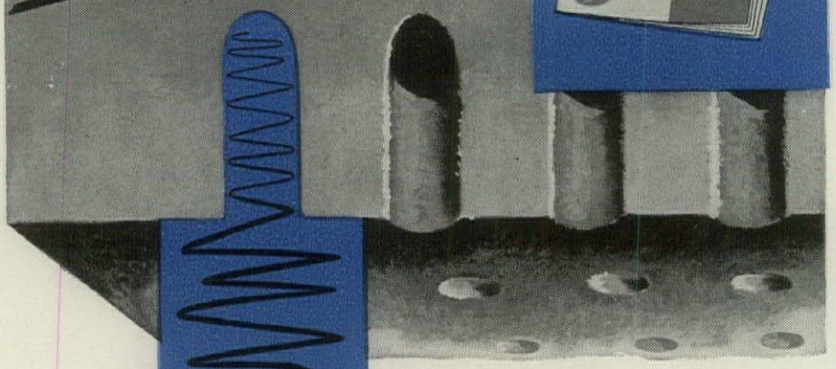
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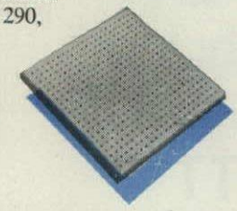
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current one. In view of its splendid record, *Task* certainly deserves the consideration and support of all who can contribute to its further development and continued stimulus. M.S.

YASUO KUNIYOSHI. By Lloyd Goodrich. Published for the Whitney Museum of American Art by The Macmillan Co., New York. 50 pp. Illus., one color plate. 10¼ x 7¾. $2.50.

This monograph on the work of Yasuo Kuniyoshi, one of the most sensitive and individual of modern American painters, celebrates his recent retrospective show at Manhattan's Whitney Museum. It also strikingly illustrates the broad improvement which has taken place in museum publications during the past ten years. A gradual change in a fast-moving age, this increasing excellence of an exhibit sideline has gone largely unnoticed beyond the inner circle of artists and their patrons. New York's Museum of Modern Art gathered first laurels (1929) in the field and is generally credited with initiating the trend toward lively, well-written and handsomely-designed books and pamphlets. In the flurry of praise for the Modern Museum, however, little attention has been paid to similar efforts from other exhibitors.

The Kuniyoshi book is part of the Whitney Museum's continuing program which started in 1931 with a series on modern American artists. Twenty-one monographs were printed by William Edwin Rudge, Inc. before the Macmillan Co. took over the job in 1938. The current Kuniyoshi book starts a new series based on retrospective shows scheduled for the coming months. Though a shade more conservative and less consciously styled than its Modern Museum counterparts, the new Whitney product comes off rather well in a comparison. Production-wise, it is about on par. In addition to a pleasing format and simple presentation it has the asset of Lloyd Goodrich's refreshingly readable text. As a pilot pamphlet, the Kuniyoshi book promises an excellent series. Too many people have fallen into the habit of using only one source for books of this type. Actually there are many sources in many cities throughout the country. They deserve note, study and, above all an active enough market to encourage multiplication. M.S.

LOCAL STYLE IN ENGLISH ARCHITECTURE. By T. D. Atkinson. 179 pp. Illus. 8¾ x 5¾. $4.50. THE AGE OF ADAM. By James Lees-Milne. 178 pp. Illus. 9 x 6. $6.00. STUART AND GEORGIAN CHURCHES OUTSIDE LONDON. By Marcus Whiffen. 105 pp. Illus. 9 x 6½. $6.00 B. T. Batsford Ltd., London and New York.

Concurrent with the opening of Batsford's New York store at 122 East 55th Street—a tree-lined thoroughfare as reminiscent of a quiet London street on a summer afternoon as anything that Manhattan can offer—is the publication of these three books. Though the publishers may have decided to challenge the wilds of the New World at last, their most recent work on architecture reveals no such departure from tradition. They are companion pieces to their predecessors, *Domestic Architecture of England During the Tudor Period* and *Old Colleges of Oxford* both in content and format. The Batsford label invariably insures an authoritative work and these three live up to it handsomely. The label also implies a characteristic, Old World type of presentation which makes the Atkinson, Lees-Milne and Whiffen tomes recognizable at a glance.

Though the demand in this country for books on traditional architecture may have dropped to an abysmal low, libraries, collectors and students nevertheless constitute a dependable,

(Continued on page 166)

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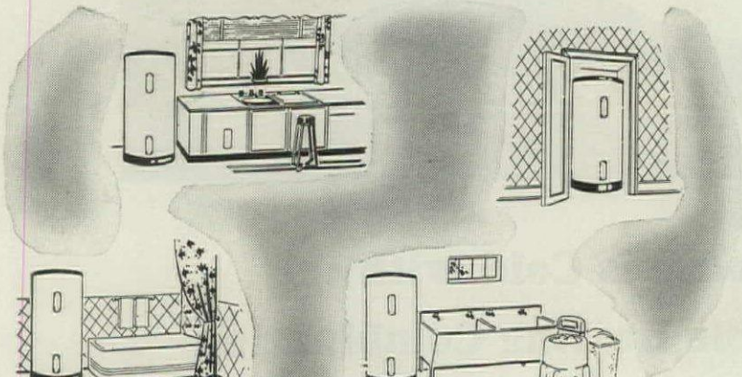
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REVIEWS

static market. To these and the usual sprinkling of nostalgic romanticists, these three Batsford books should prove irresistible. To the average, practicing architect of today, they have little other than research value. However, these comments are made with no intention of belittlement. Small though the demand may be, there is and will continue to be a market for this type of book since it contributes importantly to the study of the international roots of all Western architecture. M.S.

AMERICAN SCULPTORS SERIES, NOS. 5, 6, 7 and 8. Edited by John J. Cunningham under the auspices of the National Sculpture Society. W. W. Norton & Co., Inc., New York. 64 pp. Illus. 6⅝ x 5⅛. $1.50 each.

Following the first four volumes which illustrate the work of Wheeler Williams, Paul Manship, Anna Hyatt Huntington and Daniel Chester French are these on Malvina Hoffman, Sidney Waugh, Herbert Haseltine and Augustus Saint-Gaudens. Consistent with their established style, each contains a brief foreword written by the artist, about 50 examples of work, a brief biographical sketch and a listing of awards, decorations, degrees and works on permanent exhibition. The books are just over pocket size with covers sturdy enough to insure their survival for some time. They are good records and reference pieces and, considering their very reasonable price, are well produced, though the photographs leave something to be desired. Judging from the eight now available, only sculptors recognized in the high and unfortunately conservative circles seem to be eligible. It is hoped that future numbers will make available the work of many younger artists who have just as much or more to offer, although lacking the stamp of time. M.S.

NEW HOUSES FOR OLD. By R. R. Hawkins and C. H. Abbe. McGraw-Hill Book Co., Inc., 330 West 42nd Street, New York City. 520 pp. Illus. 9¼ x 6. $5.

As might be deduced from the title, this rather professorial book is angled at the dauntless and ever trusting legion, all of whom contemplate and many of whom go through the grueling business of remodeling or modernizing a house. The information it contains is based largely on the author's own experiences in remodeling houses, mostly frame, in New England and Pennsylvania. However, as architects they appear to have come through in a less bruised condition than can be predicted for home owners.

The contents is divided into two parts, one dealing with the broader aspects of remodeling and its feasibility under given sets of circumstances. The other contains a lot of useful knowhow for the amateur carpenter-plumber or one-man building show. Understandably, one volume cannot presume to include the building lore of a whole civilization, so the authors have supplemented their writing with a very complete list of useful books and pamphlets which the reader is urged to take in before he so much as lays a hand on the piggy bank.

In view of the mass of information available on the techniques of installing and picking locks, repairing leaky chicken houses and sawing off a protruding rafter without sitting on the end of it, the first section of *New Houses for Old* assumes first importance. It abounds in thoughtful, sober advice on when and how to remodel but may well prove a little too objective to moderate the zeal of inexperienced addicts, be they over-enthusiastic or simply pig-headed. Also, certain

(Continued on page 168)



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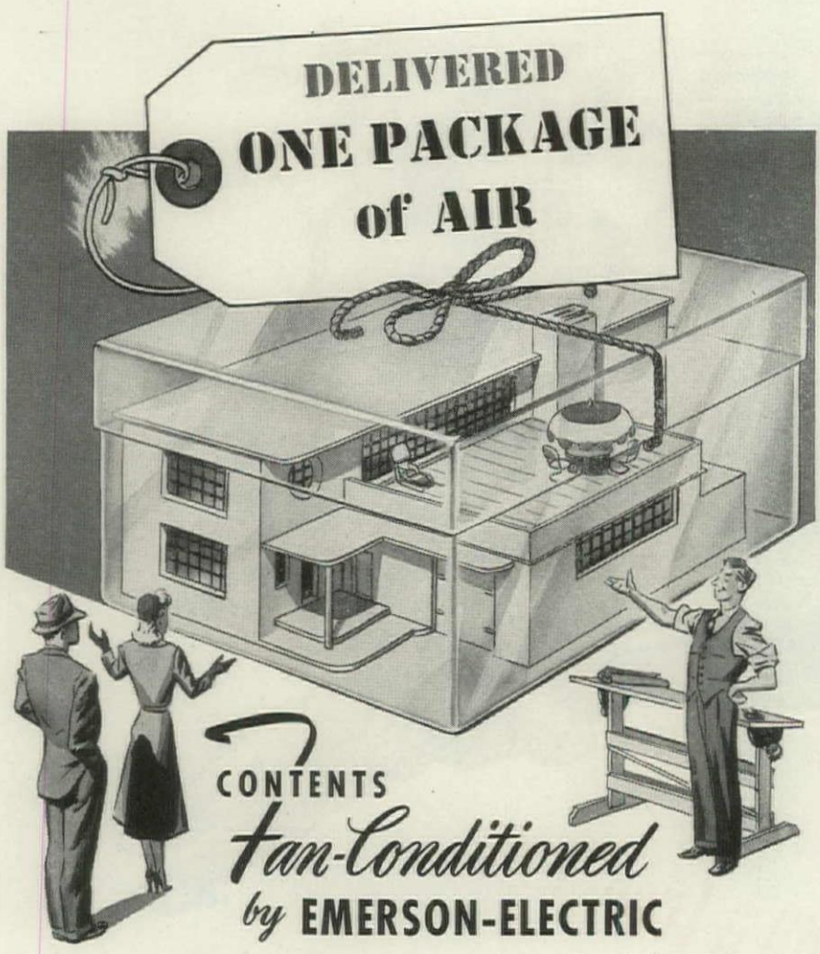
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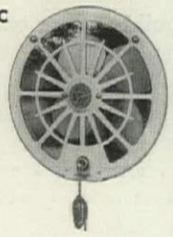
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elements that should enter into any decision concerning remodeling either go unmentioned or are brushed gently aside. One of these is financing—a topic most writers in this field seem to want to avoid but one which, properly approached and presented, earns the undying gratitude of the reader-investor. For instance, the current FHA policy toward modernization in given localities should be discussed. It should also be pointed out at the start that in many regions where financing is done through the local banks and without benefit of FHA insurance, summer residences are not acceptable, nor are acreages too small to be used for farming during depression years. These are basic facts that should be stressed at the very outset of the layman education.

The same rather detached manner of presenting facts shows up again in the section on judging the soundness of a house. Though the authors admit "Any leaning or lopsidedness that you can detect with the naked eye indicates that something is seriously wrong with the foundations or the house frame, or both," how, oh how, is the innocent reader to grasp the full meaning of the ghastly sequence of discovery and expense that almost invariably ensues? The authors recommend looking for cracks in old chimneys, especially where they pass through the roof. They don't mention, however, that with a match and a few old newspapers you can get the roof out of the way entirely, thus making it a good deal easier to examine the cracks. In briefing the layman, hazards of this type cannot be too much emphasized no matter how much you believe in experience as a teacher.

There is nothing of the light touch in *New Houses for Old*. It is an extremely sane and considered work which in spots gets pretty dry. Unfortunately, the publishers cloaked it in a costume more reminiscent of the *Steel Engineer's Handbook* than anything else. On the whole it is a rather awesome tome that, in public acceptance, will probably have difficulty competing with more sprightely editions. For its editorial content, the book should not be underestimated, however. There's no denying that it contains a wealth of vital information. But, as the authors are aware, it needs considerable supplementation to provide a thorough and intense briefing for the would-be remodeler. M.S.

ENCYCLOPEDIA OF HOME CARE AND REPAIR. By William J. Hennessey and William W. Atkin. Lantern Press, Inc., 257 Fourth Ave., New York. 429 pp. Illus. 8½ x 5½. $3.95.

No-one short of a walking encyclopedia could have on mental tap all the household information contained in this book. Though it may recall *First Aid to Ailing Houses*, the word "home" in the title is, for once, advisedly used. Therefore it covers a much broader field, dealing as extensively with equipment as with structure. Roughly, it ranges from "ants" to "zoning heat controls" with every other conceivable form of deterioration, its prevention and cure, in between. Published by *The American Home*, the book is, of course, written for people whose chief problem is how to keep the thumb from under the hammer, but it is nevertheless reliable, matter-of-fact and wastes no words. Plenty of well drawn diagrams illustrate the more complicated points. Its perusal, aside from putting a home in A-1 operating order, brings to view some interesting sidelights. For instance, who beside the authors, has taken the trouble to find out that the trend toward decentralization extends beyond the human race, to the insect kingdom? To be specific—the hitherto urban bedbug. It also includes a lot of basic knowhow such as how to start and keep

(Continued on page 170)

What a Line in colors or white it's blended just right to stay sparkling bright in colors or white it's blended just right to stay sparkling bright in colors or white it's blended just right to stay sparkling bright

a coal furnace fire burning. This book should be the property of every janitor, housewife, real estate agent, handyman, domestic science student, old maid, bachelor, homebuilder and architect in the country. M.S.

BECAUSE OF IRON: Evolving the Elevator. By John Albury Bryan American Lithographing Co., 1127 Pine St., St. Louis 1, Mo. 16 pp. 9 Illus. 8½ x 11 in. Price 50¢.

This little brochure, first of a series of the same title, is, in its own modest way, quite on a level with the Giedion book. It is a brief but informative survey by a St. Louis architect of the impact of mechanization upon vertical transportation. It traces the first improvisations in mechanical hoists (Robert Mills evolved one in 1829 to raise the figure of Washington to the top of his Baltimore monument); the gradual discovery that people as well as things could be moved by hoists; the various experiments with various motive powers (water, gravity, steam, electricity) and various mechanical systems (cable, screw, worm and piston). It was developments of this sort which, to a great degree, determined the present configuration of American building: yet until recently they have been totally unexplored. If Mr. Bryan continues the series at the high level established in the first, he will have made a real contribution to architectural history in this country. J.M.F.

EXHIBITS

The tiny, unpretentious exhibition of Louis Sullivan's masterpieces recently on view at New York's Museum of Modern Art was a remarkably eloquent tribute. The latest in a series designed to acquaint the general *(Continued on page 172)*



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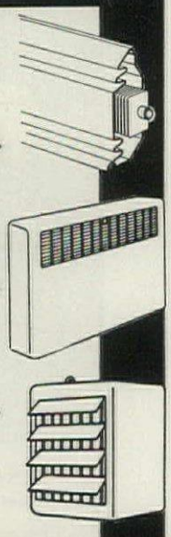
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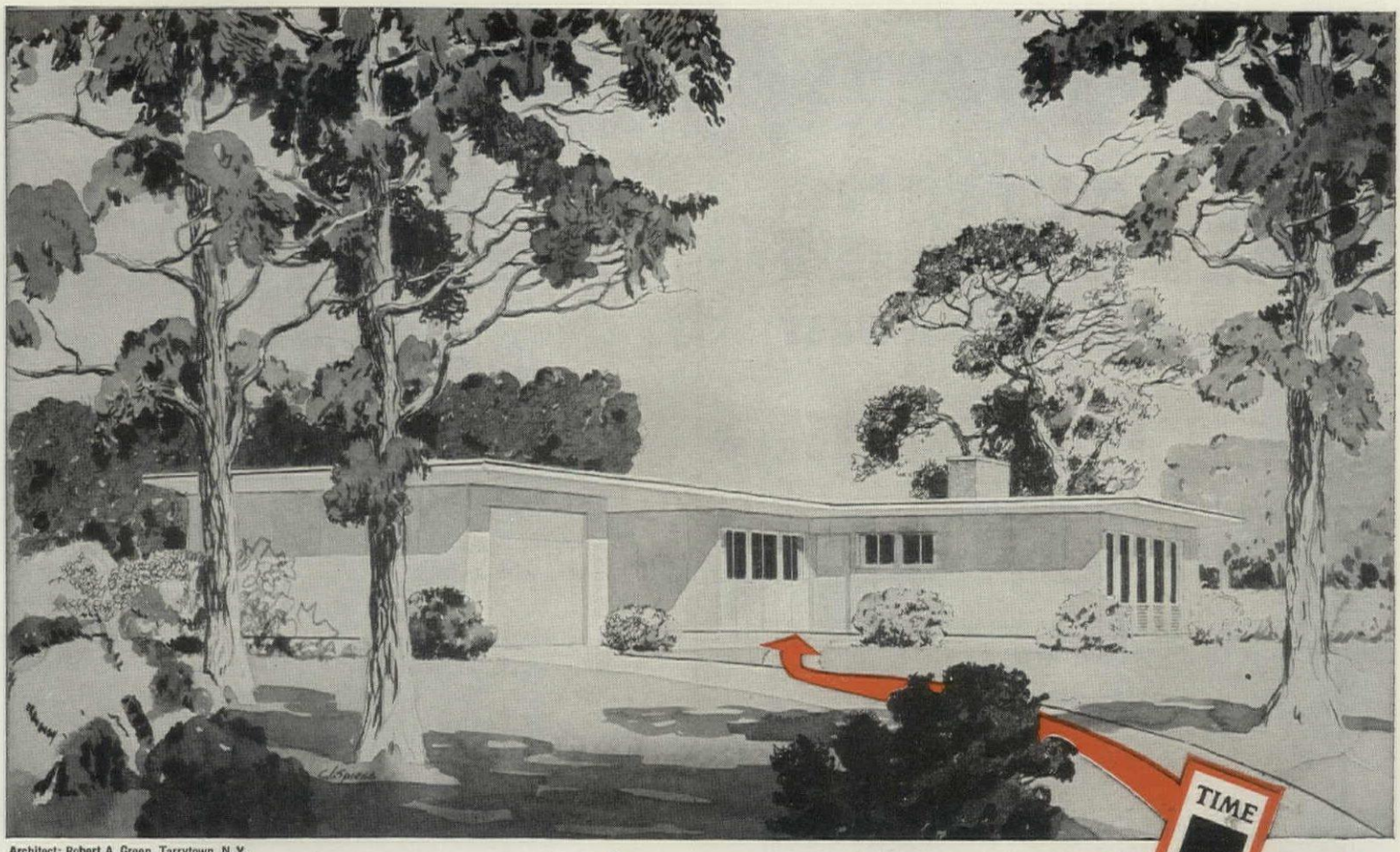


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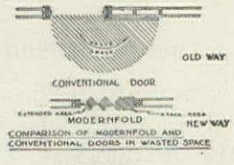
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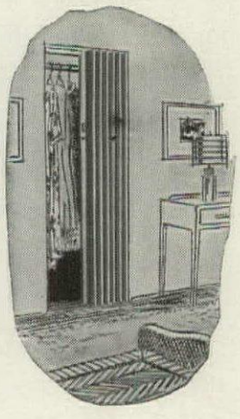
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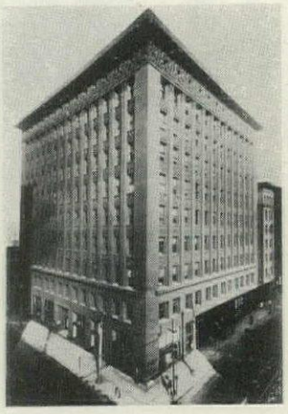


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public with the peaks of architectural development, seven large photographs (roughly 3 x 4 ft.) comprised the entire show. These were hung on three, sepia colored walls of a small square room, well lit, unaccompanied by legend. The fourth wall was occupied by pocket-size reproductions of the same pictures with the usual Museum blurb hard by.

The prints were all thoroughly familiar: The Auditorium Building, Chicago; Wainwright Building St. Louis; Guaranty Building, Buffalo; Gage Building, Chicago; Schlesinger & Mayer department store, Chicago; the Martin Ryerson tomb and a detail of the ornamentation of the proscenium wing and boxes in McVicker's Theater in Chicago. While the last two didn't obviously increase the overall impact of the exhibition, they in no way detracted from it. One found on entering that neither the venerability nor the familiarity of the buildings shown has in any way dulled the excitement of the designs' conception, integrity or articulation. As compared with the inflated Mies van der Rohe show of last year (FORUM, Nov. '47), this modest exhibition proved a tenet often preached but too seldom practiced by the Museum; that legitimate achievement is shown to best advantage in the least ostentatious presentations. To special consultants Henry-Russell Hitchcock and Vincent J. Scully, Jr.—kudos! M.S.

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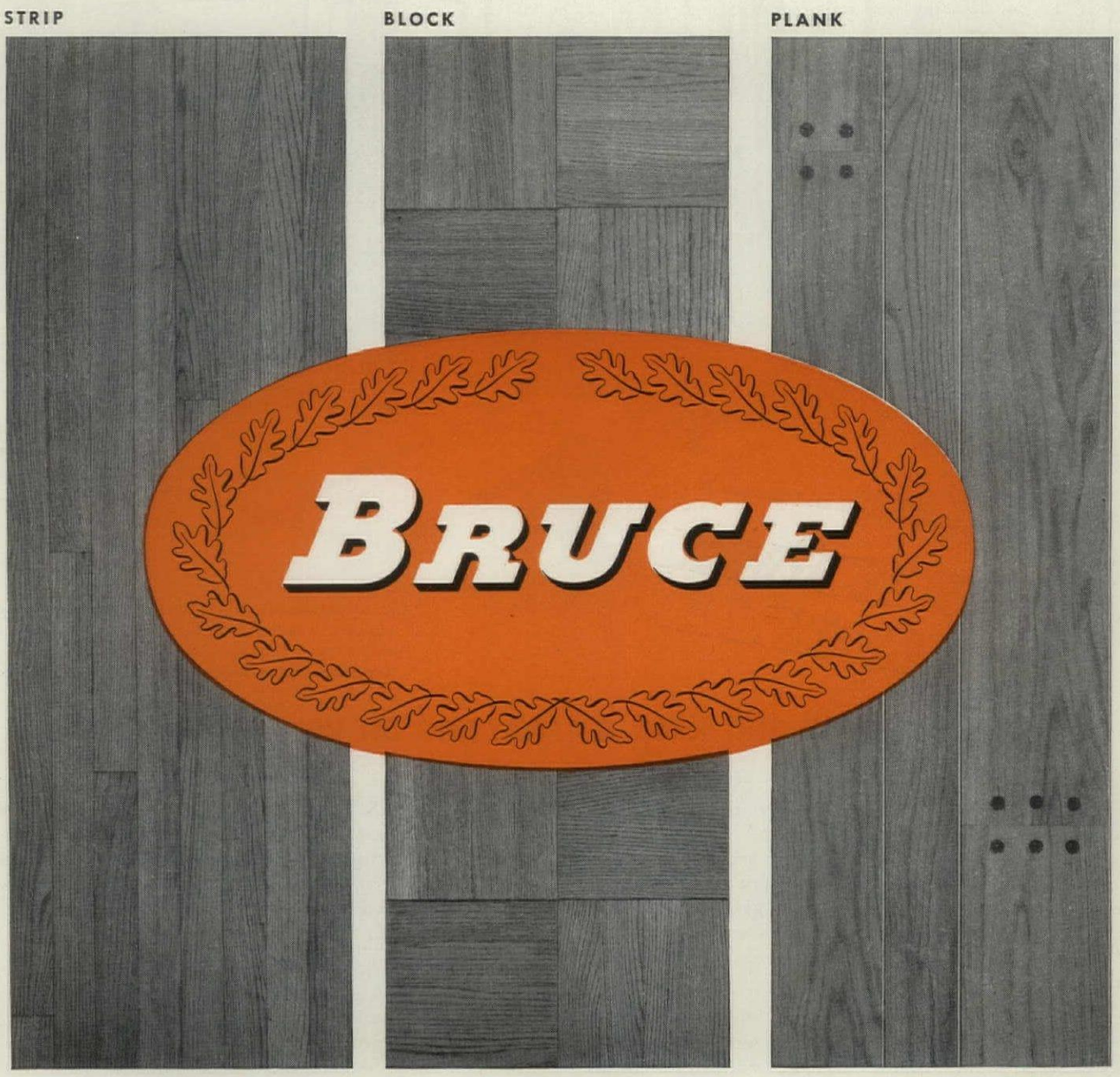
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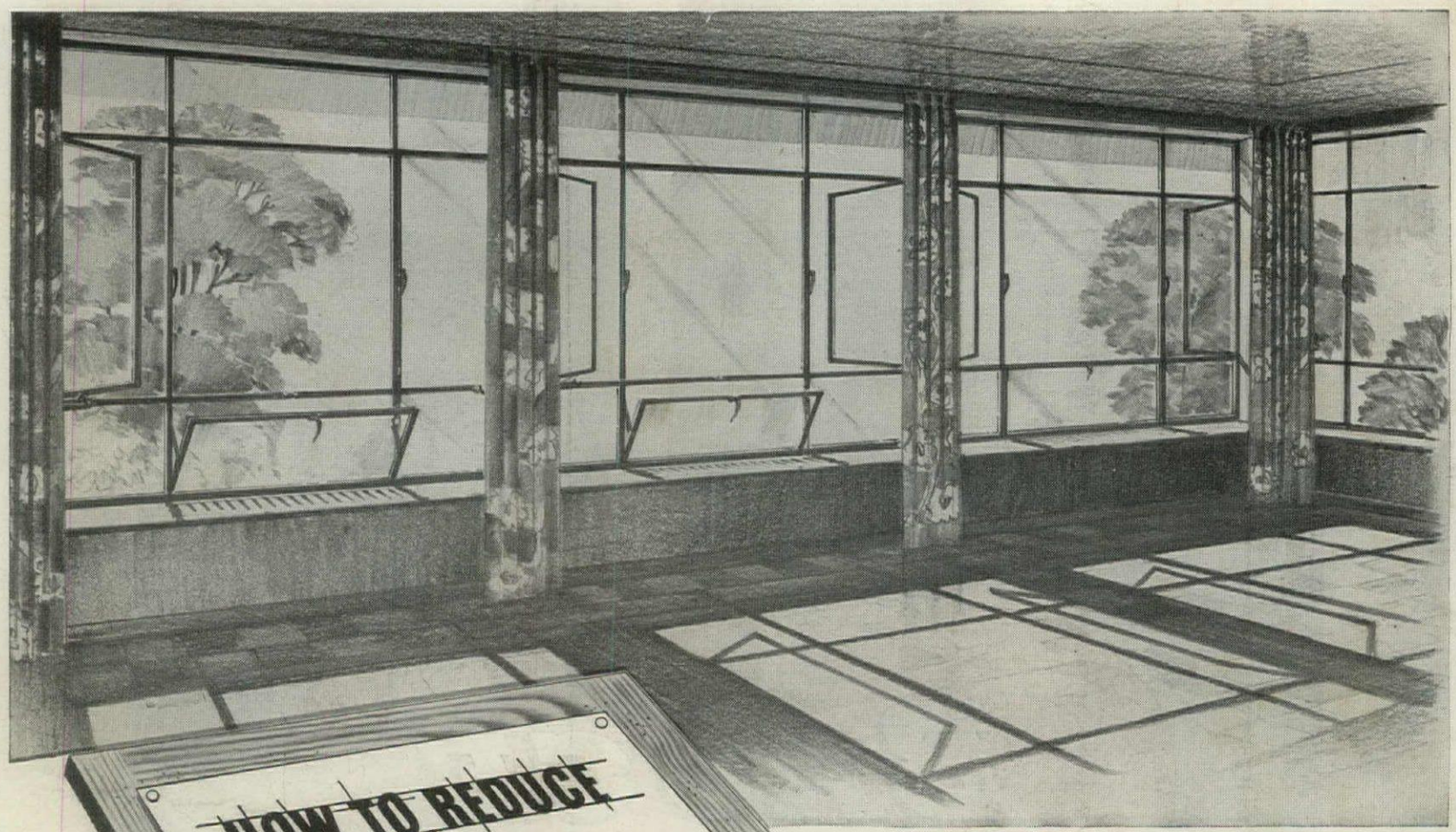
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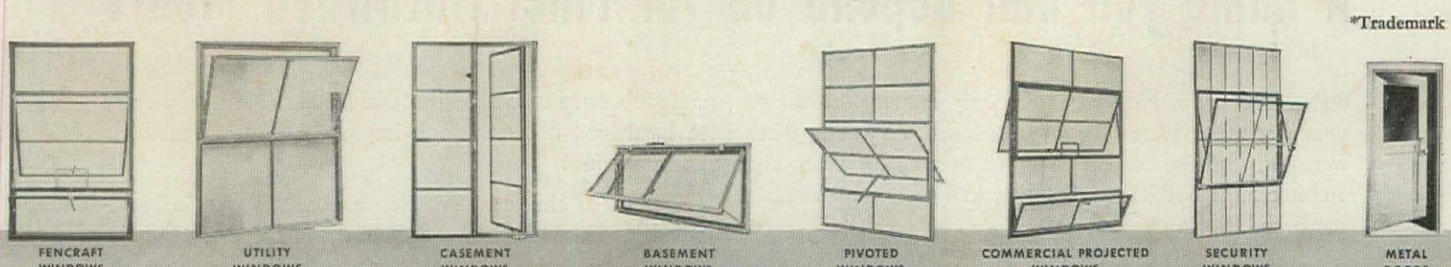
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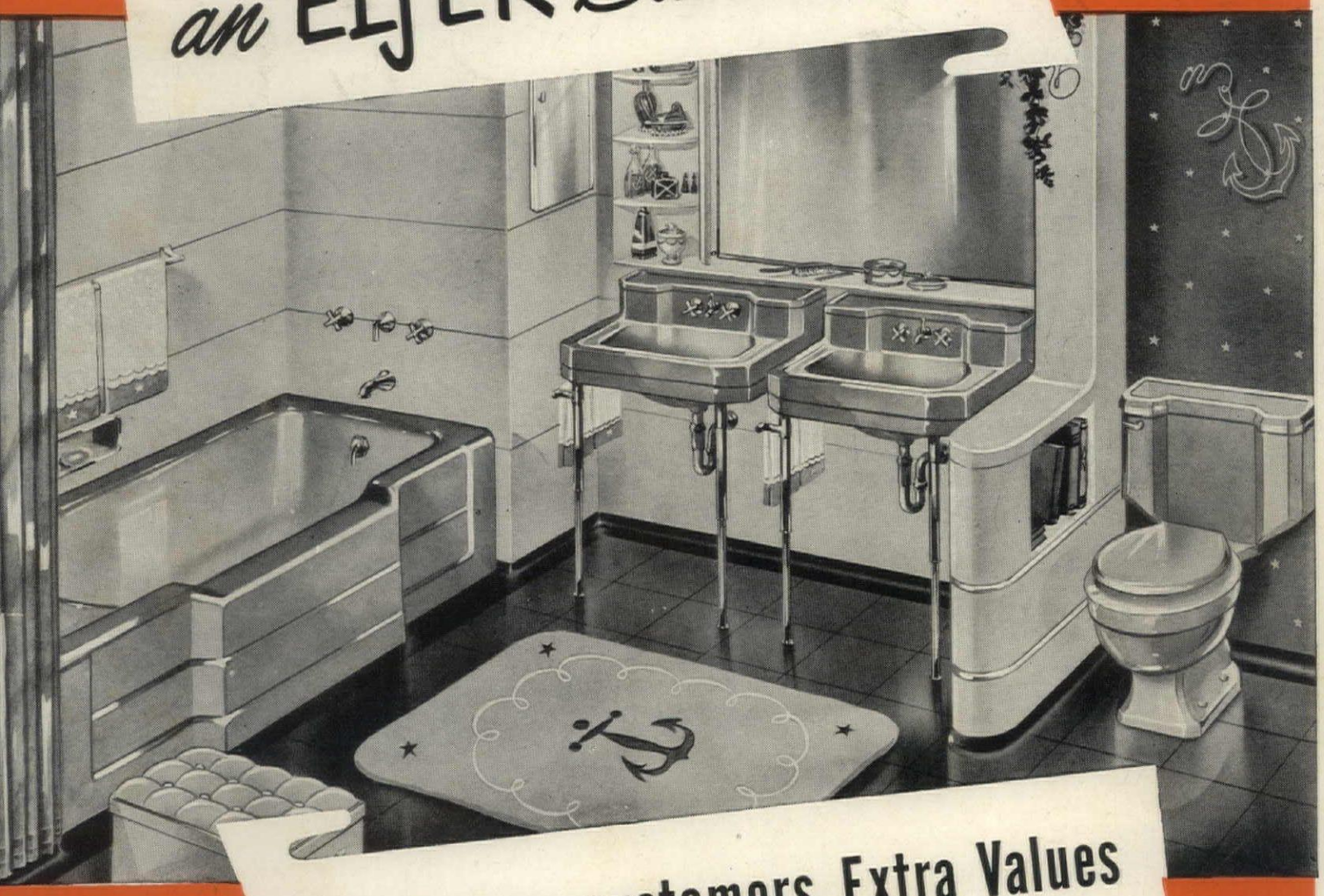
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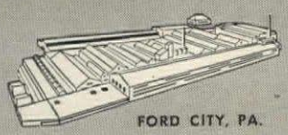
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